Doctors launch legal action over PPE

The Doctors Association UK and the Good Law Project have launched legal action to try to force the government to set up a public inquiry into the failure to procure and distribute enough personal protective equipment for health and care workers.

The move comes after some 200 health and care workers are thought to have died from covid-19 and many doctors have complained about a shortage of the right gowns, masks, and visors.

Article 2 of the European Convention on Human Rights puts the government under a positive obligation to take appropriate measures to safeguard life. It also imposes a duty to initiate an effective independent investigation into individual deaths.

The two organisations have written a pre-action letter asking ministers to immediately appoint an independent investigator, take steps to preserve evidence, identify witnesses, and commit to involving relatives of health and care workers who have died. They say they support the government’s attempts to mitigate the crisis but are “deeply concerned” about the failure to procure and supply adequate PPE. Unless they receive a reply by 25 May they are threatening to bring a judicial review case against Matt Hancock, the health and social care secretary for England.

Ministers seem to have accepted the inevitability of an inquiry into the handling of the pandemic but have insisted that it has to wait until the pandemic is over.

Jolyon Maugham QC of the Good Law Project, a not-for-profit company, said, “The government needs to know exactly what has gone wrong and is continuing to go wrong. Coronavirus is unpredictable and there are very likely to be future waves. Unless we understand the failings now, unless we learn from them, we risk making the same mistakes over again.”

The state’s investigative duty under article 2 is normally discharged through inquests, but the letter argues they are not sufficient. It points out that recent guidance from the chief coroner discouraged coroners from inquiring into whether policy failures had contributed to the deaths.

The two organisations also argue that the state’s legal duty will not be met by a delayed public inquiry. Fundraising for the legal fight, through Crowdjustice, had raised nearly £25 000 by 11 May.

Jolyon Maugham, a barrister with the Good Law Project, said the government needs to learn from its failures now so as not to repeat them in any future wave of covid-19

LATEST ONLINE

- Hancock told to make covid testing data clearer
- Known risk factors don’t explain raised risk of covid-19 death among ethnic minorities
- Campaigner calls for guidance to end DNR orders without discussion with patients and families
Boy to receive millions in damages after NHS missed abuse injuries

A 7 year old boy is set to win millions of pounds in damages from the NHS because doctors missed deliberate injuries when he was brought to hospital within weeks of his birth.

Chest x rays showed healing rib fractures, but these were missed by hospital staff, and further investigations that would have led to the involvement of social services were not carried out. Neither boy nor trust can be identified, but the trust has admitted liability.

Within months of his hospital visit he sustained devastating brain damage at the hands of his father, who later received a 15 year jail sentence. His mother was given a suspended sentence for neglect. The boy has cerebral palsy and epilepsy with no mobility, is doubly incontinent, has a severe intellectual deficit, and is seriously visually impaired.

Damages have not yet been finalised, but when the case went to the High Court Mr Justice Martin Spencer said, “It is clear his claim is a significant one, which I would anticipate eventually will run into some millions of pounds.” The judge was asked to approve an interim payment of £600 000 to allow a house to be bought and adapted for the boy, who lives with his grandparents, mother, aunt, and two siblings. An order was also made that in the event of the boy’s death his property would not go to his parents.

Research

Pregnant women at no greater risk of covid-19

Results from a large UK study showed that, from 1 March to 14 April, 4.9 pregnant women per 1000 were admitted to hospital with covid-19, around 1 in 10 of whom received intensive care. The UK Obstetric Surveillance System is being conducted by the University of Oxford, with input from the Royal College of Obstetricians and Gynaecologists and others. RCOG said that the figures supported its clinical guidance that pregnant women were at no greater risk of severe illness with covid-19 than the non-pregnant population.

UK starts major drug trial in primary care

Researchers began recruiting participants for a major UK trial in primary care, looking at drugs that could prevent over 50s from developing serious covid-19 symptoms. The Platform Randomised Trial of Interventions Against Covid-19 in Older People (PRINCIPLE) trial is testing pre-existing drugs for older patients who show signs of the disease. Led by the University of Oxford, it aims to slow or halt the progression of the virus and prevent the need for admission.

Parliament

Lords committee starts inquiry on science of virus

The House of Lords Science and Technology Committee announced an inquiry into various scientific and technological aspects of the pandemic. It said that the inquiry would be forward looking and would aim to help the government and society learn from the current pandemic, to prepare better for future epidemics caused by covid-19 or other viruses. The committee aims to identify research opportunities in epidemiology, medical care, and basic science.

Ministers promise regular tests for hospital staff

All medical staff working in hospitals will be tested for covid-19 as often as once a week even if they have no symptoms, the government said. England’s health secretary, Matt Hancock (left), told the House of Commons that the policy was being introduced to prevent the spread of the virus. “We have piloted the testing of asymptomatic NHS staff now in 16 trusts across the country and those pilots have been successful, and we’ll be rolling it out further,” he said.

Health systems

Sex workers’ health is sidelined, say agencies

Agencies criticised a lack of action to protect the health needs of sex workers during the pandemic. The English Collective of Prostitutes warned of a “ticking time bomb of health problems,” with sex workers at higher risk of ill health, substance misuse, and violence. National Ugly Mugs, a sex worker safety scheme, said that a survey of its members in late April found that they were struggling to access sexual health and family planning services, hygiene products, and antibiotics during the lockdown.

Social care

Care workers flood whistleblowing hotline

The charity Compassion in Care reported that more than 170 care workers had called its whistleblowing helpline since the start of the covid-19 outbreak. In a report summarising the feedback it had received, the charity noted a litany of “horrendous” safety concerns, as workers worried about a lack of personal protective equipment and about their mental health.

“What is emerging from these cases is a lack of action by employers in response to genuine concerns,” it said.
**MEDICINE**

**Cow’s milk allergy**

Raft of problems are identified in guidelines

Guidelines advising doctors to manage common infant symptoms as cow’s milk allergy are not evidence based, are beset by conflicts of interest, and promote overdiagnosis, a study found. Researchers from Imperial College London said current advice was especially inappropriate for breastfed infants who were not directly consuming cow’s milk and risked undermining confidence in breastfeeding. The evidence review, published in *JAMA Paediatrics*, found that, in more than 99% of infants with proven cow’s milk allergy, the breastmilk of a woman consuming cow’s milk contained insufficient allergen to trigger an allergic reaction.

**Domestic violence**

Emergency calls about domestic violence rise 60%

A 60% increase in emergency calls from women subjected to violence by their intimate partner was reported in the World Health Organization’s European member states. Comparing April 2020 with the same period last year, WHO said that online inquiries to violence prevention support hotlines had also increased, as much as fivefold.

**Renal health**

Assess covid patients for kidney injury, says NICE

Patients with suspected or confirmed covid-19 should be assessed for acute kidney injury (AKI) on hospital admission or assessed for acute kidney injury confirmed covid-19 should be referred to a specialist.

**Drug treatments**

Patients can report suspected covid side effects

The Medicines and Healthcare Products Regulatory Agency launched an online site for people to report any suspected side effects from medicines, future vaccines, and medical equipment incidents relating to covid-19. The agency plans to use these “yellow card” reports to monitor the safety of products, to rapidly identify new or emerging risks, and to take regulatory action.

**Patel urged to enact controlled drug legislation**

The home secretary, Priti Patel, was urged to immediately enact revised legislation allowing pharmacists in a pandemic situation to supply some controlled drugs without a doctor’s prescription and to alter dosages or substitute drugs in cases of shortages. In a letter sent on 4 May, more than 50 experts warned that failing to enact the change could put patients at risk.

Cite this as: BMJ 2020;369:m1907

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**CIRRHOSIS**

More than a third (36%) of people with cirrhosis who have contracted covid-19 have died, compared with 3-4% of the general population with covid [SECURE-Cirrhosis Registry]

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**FOR WHAT?**

Covid-19, of course. In a curious move, the government has decided to replace its clear slogan “stay home, protect the NHS, save lives” with the distinctly more ambiguous “stay alert, control the virus, save lives.”

**ERM . . . WHY?**

The intention is apparently to “broaden the message” to show the country is moving into the next phase of its pandemic response.

**BUT WHAT DOES IT ACTUALLY MEAN?**

According to Boris Johnson, it means (deep breath) stay at home as much as possible, work from home if you can (but if not, aim to go back to work), limit contact with people outside your home, keep your distance if you do go out (ideally 2 m), handwash regularly, and self-isolate if you have symptoms.

**THAT’S A WHOLE LOTTA SUBTEXT**

Too much, say many. With UK infection rates (or “R”) still precariously just below 1, there are fears the slogan sows confusion when clarity is vital. Susan Michie, a behavioural expert and member of the scientific advisory group for emergencies (SAGE), warned it “may be taken as a green light” by many people to partake in activities that could increase the risk of transmission.

**ARE ALL UK GOVERNMENTS ON BOARD?**

Far from it. Scotland’s first minister Nicola Sturgeon said abandoning the original message was potentially “catastrophic” and called the Johnson administration’s new slogan “vague and imprecise.” And she, with the leaders of Wales and Northern Ireland, are all sticking with “stay at home” and keeping restrictions in place.

**SHE HAS A POINT, DOESN’T SHE?**

That it’s open to interpretation would be a generous way of putting it (and that’s leaving aside the odd mental image that it creates of being “on the lookout” for an invisible virus). Too much, say many. With UK infection rates (or “R”) still precariously just below 1, there are fears the slogan sows confusion when clarity is vital. Susan Michie, a behavioural expert and member of the scientific advisory group for emergencies (SAGE), warned it “may be taken as a green light” by many people to partake in activities that could increase the risk of transmission.

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**16 MAY 2020**

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Plan to ease lockdown is “too fast, too confusing, too risky”

Boris Johnson’s roadmap outlining how England will take its first steps out of lockdown risks a second spike in cases, doctors have warned. More stringent measures will remain in place in Scotland, Wales, and Northern Ireland, whose governments have set slower routes out of lockdown and are retaining the “stay at home” message being abandoned in England.

**Change of emphasis**

Johnson said that, in England, there will be a change of emphasis from “only go to work if you must” to those, for example, in construction or manufacturing, being “actively encouraged to go to work.” Commuters should, however, avoid public transport if possible, he said.

The public will be able “to take more and even unlimited amounts of outdoor exercise,” allowed to drive longer distances to exercise, sunbathe in parks, and play sport with household members.

The second stage of easing will start on 1 June at the earliest and will include the phased reopening of shops and primary schools. During the third stage, which may start as early as July, the government hopes to “reopen at least some of the hospitality industry and other public places.”

Johnson emphasised that social distancing measures will remain in place and that the plan, and especially its timetable, was “conditional” on science and data. Progress will continue to be assessed through the existing five tests, and there will be a five tier alert system determined by the reinfection rate (R) and the number of cases (graphic, right).

The new strategy slogan in England, changed from “stay at home, protect the NHS, save lives” to “stay alert, control the virus, and save lives,” has been described as “vague” and “confusing” and has been rejected by the other UK nations.

Wales’s first minister, Mark Drakeford, said people there should stay home “wherever you

Low paid men have highest death rate

Men working in the lowest paid jobs have the highest rate of death involving covid-19 among working age people, Office for National Statistics (ONS) figures show.

Healthcare workers, including doctors and nurses, were not found to have statistically higher rates of death when compared with those of the same age and sex in the general population.

There were 2494 deaths involving covid-19 among 20 to 64 year olds registered up to 20 April in England and Wales. Nearly two thirds were men. The records of three quarters of the deaths (1852) included job data that were used in the analysis.

Men working in the lowest paid occupations—such as construction and cleaning—had the highest death rate at 21.4 per 100 000. This was more than double the average for working age men of just under 10 per 100 000. The data were published after Boris Johnson’s 10 May announcement that manufacturing and construction workers should be encouraged to return to work.

Men and women working in social care had significantly raised rates of death at 23.4 per 100 000 in men (45 deaths) and 9.6 deaths per 100 000 women (86). Workers in care homes have often raised concerns about a lack of PPE.

The rate of death among healthcare workers was 10.2 per 100 000 men (43 deaths) and 4.8 per 100 000 women (63 deaths). The category included doctors, nurses, midwives, nurse assistants, paramedics and ambulance staff, and porters.

The ONS said the analysis did not prove conclusively that death rates were necessarily caused by occupational exposure. The analysis was adjusted for age, but not for ethnic group or residence.

Neil Pearce, professor of epidemiology and biostatistics at the London School of Hygiene and Tropical Medicine, said, “The findings emphasise that there is a broad range of occupations which may be at risk from covid-19. These are many of the occupations that are being urged to return to work.”

Jacqui Wise, London

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**Cite this as:** BMJ 2020;369:m1906

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**GPs can’t see patients’ drive-through test results**

General practices have not been able to access many thousands of covid-19 test results for their patients carried out at drive-through centres in England.

The centres, set up by the private company Deloitte, have conducted hundreds of thousands of tests as part of “pillar 2” of the testing programme. When the scheme was launched in March, the government said results would be linked to patients’ GP medical records and shared with practices. But GPs report this is not happening.

Helen Salisbury, a GP in Oxford, said, “We have no access to testing information for patients at all. It’s a real restriction on families. A large proportion of cases have been in the community, yet GPs have been left out of the whole conversation.”

**Admitted to hospital**

Salisbury said the only way she knew whether a patient had tested positive was if they were admitted to hospital. “I have coded 99 patients with suspected covid-19, and only five confirmed with a positive test,” she said. “If we’re going to get this mass contact tracing going, we need to know what’s going on.”

The Department for Health said data from drive-through tests had been shared with PHE and it was working on a solution to get test results into individual general practice records in England accurately.

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**Cite this as:** BMJ 2020;369:m1875

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Gareth Iacobucci, The BMJ

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**Cite this as:** BMJ 2020;369:m1875
**Government risks further wave of infection, scientists warn**

The government must alter its strategy for tackling covid-19 or face a further wave of infections and subsequent lockdowns, a report from an independent group of scientists has warned. The report by Independent SAGE, a group set up and chaired by a former chief scientific adviser, David King (right), said the focus must shift to suppressing the virus by implementing a policy of testing, tracing, and isolating cases. “Exit from the current lockdown must encompass a strategy of searching for the virus wherever it appears,” it said.

**“Ambivalence”**

“We detect ambivalence in the government’s strategic response, with some advisers promoting the idea of simply ‘flattening the curve’ or ensuring the NHS is not overwhelmed. We find this attitude counterproductive and potentially dangerous. Without suppression, we shall inevitably see a more rapid return of local epidemics and face the prospect of further lockdowns.”

The group, which was set up in response to what it saw as a lack of transparent advice from the government’s Scientific Advisory Group for Emergencies (SAGE), said its report offered a “constructive” and evidence based alternative to the government’s covid-19 strategy. Among 19 recommendations it calls for the adoption of “real time” or “generative” models when deciding on whether to lift or apply lockdowns. This approach, it says, would be more accurate for inferring infection rates and informing surveillance and testing strategies than the currently used epidemiological models, which are based on data with a three to four week time lag.

On testing and tracing, it said the centralised approach had led to an “overreliance” on private contractors and on digital solutions, and insufficient focus on local responses. Long term management of the pandemic should centre on community based tracking, isolation, and follow up, it said.

The report calls for a greater focus on protecting those at high risk, including stopping patients with covid-19 from being sent back to care homes, and tackling the virus’s impact on older and ethnic minority people.

**“Fewest fatalities”**

King said, “We have produced actionable recommendations that we believe, if adopted, will help the UK bring this pandemic to an end as quickly as possible with the fewest fatalities, something that surely must be the government’s primary goal.”

Anthony Costello, professor of global health at University College London and a member of the group, told a press briefing, “Success, ultimately, is about suppressing the virus. At the moment we have, according to John Edmunds from SAGE, 20 000 cases a day. That’s not sustainable. We have to get those numbers down and then have an integrated, sustainable ‘find, test, trace’ policy linked to GPs and to local public health.”

Cite this as: BMJ 2020;369:m1917

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Confederation, said that the NHS was still treating thousands of patients with covid-19 and that a tragedy was unfolding in care homes. “This is certainly not the moment to throw away the gains made in controlling the virus,” he said. “We have not yet cracked the personal equipment challenge nor access to testing. We are not ready to roll out the test, track, trace strategy.”

**“No significant drop in new cases”**

Stephen Griffin, associate professor at Leeds School of Medicine, said he was “deeply concerned” at the message, adding, “We have achieved a plateau in new cases, not a significant drop, which means the previously established pillars have not been met.”

In a 60 page document—OUR PLAN TO REBUILD—the government advised the public to wear face coverings in enclosed public spaces where social distancing was not possible or when on public transport. People should make their own masks or use a scarf to cover their nose and mouth and not use surgical masks or respirators needed by health and care workers, the document said.

Niall Dickson, chief executive of the NHS can” and that exercise must be local to home, or people could face fines. Northern Ireland has already extended its lockdown to 28 May.

Chaand Nagpaul, BMA council chair, said the plan for England was “too fast, too confusing, and too risky.” “Much of the government’s management of the pandemic has been inconsistent and lacking the absolute caution needed,” he added. “We need to see clear plans in response, with some advisers promoting the idea of simply ‘flattening the curve’ or ensuring the NHS is not overwhelmed. We find this attitude counterproductive and potentially dangerous. Without suppression, we shall inevitably see a more rapid return of local epidemics and face the prospect of further lockdowns.”

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The morning after Boris Johnson announced the easing of covid-19 lockdown restrictions in England, London commuters once again packed into tube trains after being urged to return to work if they were unable to work from home.

The government advised anyone who has to take public transport to wear face masks, keep their distance from fellow travellers, and try to avoid rush hour. But pictures posted on media and social network sites of trains and stations across the country showed that many people were unable to follow the guidance.

Transport for London is introducing hand sanitiser points at its stations and will steadily increase the number of trains and buses in service, but Mike Brown, London’s transport commissioner, has conceded that 2 m social distancing “may not always be possible.”

This lack of ability to ensure the virus is not spread between people is among the concerns of Chaand Nagpaul, BMA council chair, who said the first phase of easing the lockdown in England had come too soon. “It is imperative that we do not risk people mixing with each other without the ability to rigidly adhere to social distancing.”

Alison Shepherd, The BMJ
Cite this as: BMJ 2020;369:m1920
Violence against women during the pandemic

Protections for domestic abuse victims must be built into response plans

As the covid-19 pandemic intensifies, its gendered effects have begun to gain attention. Though data are scarce, media coverage and reports from organisations that respond to violence against women reveal an alarming picture of increased reports of intimate partner violence during this outbreak, including partners using physical distancing measures to further isolate affected women from resources.1,2

In Jianli County, Hubei province of China, a police department reported a tripling of domestic violence cases in February 2020 compared with February 2019, estimating that 90% were related to the covid-19 epidemic.3 In the UK, a project tracking violence against women noted that deaths from domestic abuse between 23 March and 12 April had more than doubled compared with the average rate in the previous 10 years.4

Predictable harm
These reports are disturbing yet predictable. Globally, 30% of women experience physical or sexual violence by an intimate partner in their lifetime.5 Such violence can increase during humanitarian crises, including conflict and natural disasters.6 The gendered impacts of infectious disease epidemics are less understood and acknowledged.

Past epidemics, including Ebola7 and Zika,8 suggest violence against women may shift in nature and scale as outbreaks affect social and economic life.7 Half of the world’s population is being asked to stay at home to slow the spread of covid-19.9,10 For women already in abusive relationships, or at risk of such abuse, staying at home increases their risk of intimate partner violence.

As people stay at home, families spend more time in close contact, including in cramped conditions. Simultaneously, the disruption of livelihoods and the ability to earn a living reduces access to basic needs and services, causing additional stress. Perpetrators of partner violence may also restrict access to money or health related items such as hand sanitiser, soap, medications, and access to health services.

The disruption of social and protective networks may further exacerbate intimate partner violence and its consequences. Women may have less contact with family and friends who provide support and protection from violence by a partner. Perpetrators may further restrict access to services, help, and psychosocial support from formal and informal networks.

As health and other support services, including sexual and reproductive health services, are scaled back, women subjected to violence may have less opportunity for receiving support and referrals from the health sector. Other essential support services such as hotlines, crisis centres, shelters, legal aid, and protection and counselling services may also be scaled back, further reducing access to help for women in abusive relationships.

The health sector can take steps to mitigate the risk of violence against women during the pandemic restrictions and help reduce its effects (see box on bmj.com). Governments must include essential services to deal with violence against women in covid-19 response plans, resource them, and identify strategies to make them accessible during physical distancing measures. Health facilities should identify locally available support services for survivors (such as hotlines, shelters, rape crisis centres, counselling) and refer women when they seek health services.

Reaching vulnerable women
Health providers should be aware of the risks and consequences of violence against women and provide those affected with support and relevant medical treatment. Older women, women with disabilities, women living in humanitarian crises contexts, poor women living in crowded conditions, and ethnic minorities may be disproportionately affected. The use of mobile health and telemedicine to safely deal with violence against women must be explored urgently, as well as other means to reach women in settings where access to mobile phones or the internet is lacking.11,12

Importantly, the world’s most vulnerable populations will be affected as this pandemic reaches countries with high levels of poverty, displacement, and conflict. Humanitarian organisations need to make services available for women experiencing violence and collect data on reported cases.

We must learn lessons from past epidemics about the failures to recognise and address gender related effects of outbreaks. As the global health community grapples with how best to halt the spread of covid-19, the ongoing epidemic of violence against women cannot be ignored.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.m1712
Symptom control at the end of life

Families may be asked to administer drugs to relatives dying in community settings during the pandemic

Doctors, nurses, and family caregivers worldwide are facing tough decisions concerning the supply and administration of medications to manage symptoms when patients are dying from covid-19 or other conditions in the community or care homes. Proposed changes in practice aimed at ensuring adequate end-of-life symptom control need careful consideration alongside appropriate training and support.

Radical overhaul
Updated UK advice, including NICE rapid guidance on managing covid-19 symptoms in the community, reiterates the importance of prescribing medications in advance of need for pain, nausea and vomiting, agitation, and respiratory secretions.1-3 These drugs may be administered if needed by visiting doctors or nurses, as is already well established in some countries.4,5 However, this practice is being overhauled radically in response to the pandemic.6-8
Prescribers are now being asked to consider drug administration by family caregivers when community nurses and doctors are not available to administer end of life drugs in a timely way.9 Family caregivers willing to take on this role should be adequately trained and responsibly supported with access to 24 hour phone advice.9,10
Prescriptions may need to include drug formulations that family caregivers can administer buccally, sublingually, or rectally, in addition to the subcutaneous injection route, as these are easier for non-professionals.11,12 There is good evidence for the effectiveness of subcutaneous injections of drugs such as opioids and midazolam at the end of life.13,14 The buccal and sublingual routes are much less commonly used, however, and their limited evidence base comes primarily from professional experience and paediatric palliative care.15,16

Family caregivers willing to take on this role should be adequately trained and supported with access to 24 hour phone advice.

Both rectal and buccal routes in covid-19 carry the risk of transmitting infection.13

A big ask
Although family caregivers commonly administer anticipatory medications in rural Australia, it is rare in the UK and many other countries.5,6 This is a big ask. Family caregivers may feel under pressure to undertake tasks for which they do not feel prepared or confident.14 They may feel a tension between their emotional involvement and this clinical task. Clinicians often worry that they may have hastened death if a patient dies shortly after drug administration.6,15 This anxiety may be even greater for family caregivers, with some worrying that it amounts to euthanasia. These tensions require sensitive explanation from the outset6-10 since if the relative dies during the pandemic families will be confronting these concerns while grieving in isolation.

Timely supply
Increasing demand for drugs to control symptoms is also affecting prescribing decisions.6 The dilemma is whether to continue to prescribe anticipatory medications ahead of expected death, risking exhausting pharmacy supplies, or to delay until a patient is clearly dying.

Acting to protect limited drug stocks for those who need them most risks delays in care and gives little time to prepare family caregivers to administer drugs. NICE guidance recommends that drugs continue to be prescribed ahead of need but in small quantities and cautions that patients with covid-19 can deteriorate rapidly so it is better to be prepared.1 This advice to continue judicious prescribing of anticipatory medications seems wise, provided that drug stocks remain adequate.

It would be helpful if community healthcare services could hold central stocks of the common end-of-life drugs, enabling rapid prescribing and dispensing. In care homes, allowing drugs prescribed for one resident to be used for another resident would ensure efficient use of limited supplies but would need legislative changes in many countries.

The pandemic is creating considerable challenges for end-of-life care across the world. It is vital to plan and provide suitable support now if changes in practice in the community are going to be safe and appropriate for patients and their family caregivers.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.m1615
What is contact tracing?

By finding out who has had close contact with an infected person, contact tracing can determine who should be tested or asked to self-isolate. If done swiftly, this can contain outbreaks within a small population. Even when a disease has become widespread, contact tracing can still help to curtail transmission by detecting people in the early stage of infection, not when they’ve become symptomatic. And it can reveal useful data on where and how the disease is spreading.

Contact tracing has previously been used successfully around the world to control outbreaks of Ebola and various sexually transmitted infections.

What does it involve?

A substantial proportion of contact tracing comprises telephone interviews with an infected person’s recent contacts—people who have been within 2 metres for 15 minutes or more, as suggested by the European Centre for Disease Prevention and Control. The centre also recommends that covid-19 contact tracers classify an infected person’s contacts as “high risk” or “low risk,” depending on the level of contact they report. It advises that tracers follow up with contacts to see if their infection status changes.

How have different countries implemented contact tracing?

South Korea contained two worrying outbreaks of covid-19 in Daegu and Cheongdo and has recorded just 250 or so deaths to date. Jonathan Kennedy, a senior lecturer in global public health at Queen Mary University of London, describes in an online article how contact tracing was a major element of the country’s covid-19 strategy. But he says it’s not possible to simply copy its approach in the UK.

“South Korea spent years preparing for this [and] seems to have a very well functioning public health system. You can’t just magic that up after 10 years of austerity and build all that from scratch,” he says. Plus, contact tracers in South Korea had access to CCTV footage, data from mobile phones, and credit card records. That would be considered “far too intrusive” here, says Allyson Pollock, clinical professor of public health at Newcastle University.

In Europe, most countries are working to expand the manual contact tracing workforce. Staff in the Republic of Ireland are making 2000 calls a day, and this is set to rise to 5000 a day. Belgian authorities plan to recruit 2000 tracers who will be based in regional offices—a markedly different approach from the UK, which favours a centralised approach.

Around the world, different countries face different challenges. In Liberia, which has dealt with Ebola outbreaks in recent years, there is considerable stigma and mistrust.
Can smartphone apps help?

App based tracing uses the fact that in many countries, including the UK, most of the population owns a smartphone. These devices can be configured to communicate with one another and to keep a record of when two phones come into proximity. When someone reports through the app that they are feeling unwell, the app can provide information about how that person can get a covid-19 test. Should the user later notify the app that they have tested positive, the software can automatically send an alert to other phones with the app that were nearby in recent days.

The “manual” approach, by contrast, means that tracers have to ask people who have tested positive for the virus to tell them who they might have been in contact with and then follow up those people by telephone. The European Centre for Disease Prevention and Control notes that calls with each contact can take around 20 minutes. The manual process is “too slow,” given the transmissibility of covid-19, according to researchers at the University of Oxford. Manual tracing does, however, allow for a human voice that can be comforting when breaking bad news of a positive result, and also reaches people that may not use or be comfortable with smartphones or electronic data sharing.

In practice, a contact tracing programme might rely on both automatic and manual approaches.

One major stumbling block for these apps is that they require a large proportion of people in a population to download and use them. In the UK, experts advising the NHS say that 80% of smartphone users—roughly 56% of the total population, or 37 million people—would need to use the app for it to be effective.

What is the UK’s contact tracing strategy?

The UK had been conducting contact tracing until the government decided to stop this on 12 March when it moved testing capacity exclusively to patients admitted to hospital. The reasons for this were not disclosed at the time, but the government has implied that it was due to a lack of capacity in the face of skyrocketing cases. By 12 March, 30 000 people had been tested in the UK. KK Cheng, a professor of public health and primary care at the University of Birmingham, says that the UK abandoned contact tracing “way too soon.”

Full details of the new contact tracing programme have not been made public. But we do know that the government has committed to hiring 18 000 people, including 3000 healthcare staff, to handle phone calls. All are to be appointed by the week beginning 18 May. The Times reported that thousands of these workers will be recruited through private companies, and The BMJ has seen one recruitment advertisement for covid-19 contact tracers posted online by outsourcing firm Go-centric. Matt Hancock, the health secretary, announced at a press conference on 4 May that “thousands” of people had already been hired.

A spokesperson for the Department of Health and Social Care told The BMJ that they were “confident” that the hiring target would be met by the deadline. They declined to say what questions call handlers will ask and what advice they will give to people who are suspected to have caught covid-19. “Further details will be set out in due course,” they said.

But Cheng says that more staff might be needed. The 18 000 mooted is “probably an underestimate” for how many will actually be required, he told The BMJ, adding that there was little point in setting arbitrary targets. “If you find 18 000 is not enough, then give them 36 000,” he says.

The UK has also launched an app to gather data for contact tracing. Currently, it is being evaluated on a small scale on the Isle of Wight.

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The support UK care homes need to survive

Help for the social care sector has come late in the day, but it’s not just PPE and testing that it needs. Access to clinical expertise, palliative care, and bereavement support is also vital, reports Rachel Carter

On 16 March Donna Pierpoint locked down the nursing home she runs in Sheffield, in the hope of protecting her 38 residents from the covid-19 outbreak. Pierpoint has read every piece of guidance she can get her hands on. She has pursued every avenue to get personal protective equipment (PPE) for her team at the Broomgrove Trust home. But she is scared. She knows the virus could still get in.

“I feel very sad that care homes were not thought about,” she says. “Everyone was left to make their own decisions, so huge risk was put there at the beginning. It’s almost as if the attitude is still that we are behind closed doors and people in care homes are old and die anyway—but that’s not right and it’s not acceptable.”

Covid-19 is moving through the UK’s care homes at an alarming rate. As at 29 April, 4652 (30%) of 15 517 care homes in England had reported an outbreak, show data from Public Health England. From 10 April to 1 May the Care Quality Commission (CQC) was notified of 6391 deaths, but it said this could still be an underestimate.

Support for the sector has come late, and more is needed. An action plan was not published by the Department of Health and Social Care (DHSC) until 15 April, four and a half weeks after Pierpoint closed her doors, and three and half after Boris Johnson announced the wider UK lockdown.

Care home staff are still waiting for tests (see box 1 on bmj.com), and a supply chain designed to tackle the PPE shortage is still weeks away (box 2 on bmj.com). These are the well known issues, but there are other difficulties England’s 685 000 care home staff are grappling with.

Clinical and bereavement support
Care homes need input from clinicians to help them through this crisis; NHS England announced at the end of April that it was bringing forward, from October to May, the rollout of some elements of the Enhanced Health in Care Homes service. This involves GPs providing extra support, including a weekly clinical review of priority patients, and assistance with producing personalised care and support plans for residents.

Maggie Keeble, a GP for five care homes with 160 residents in Worcestershire, is driving forward this approach as part of her area’s pandemic response. “I’ve been working really hard on a combined integrated response, so we’ve got a medic and a district nurse in each area who is a go-to person for care homes and that these people are talking to each other as well,” she says.

Keeble, who is also clinical lead for care homes at the Herefordshire and Worcestershire Clinical Commissioning Group, has one nursing and four residential homes in her care, one of which currently has residents who have tested positive for covid-19. She says the CCG acted quickly to get iPads into every care home, ready to enable video consultation with GPs. She’s also set up a Zoom call for all care homes in the county, which has already risen from four participants to 27.

“We’re also looking at how we can provide bereavement support for care home staff, because I’m very conscious that’s going to be a big area too,” she says.

“The chaplains’ network in Worcester has offered to do an online combined memorial service for staff, or one for each individual home, if they would like that.”

Isolation arrangements
Where a home does have a suspected or confirmed case, they must isolate the resident. The International Long term Care Policy Network has published a strategy for how a building could be divided into risk zones. Residents are put into a green, amber, or red zone, depending on whether they have no symptoms, have no symptoms but recently
returned from hospital, or are displaying symptoms.

An extra challenge for staff will be isolating people with dementia, whose condition may mean they walk with purpose around the home, and those who may lack the capacity to understand why they need to be isolated and to consent to it.

Aswini Weereratne, a barrister at Doughty Street Chambers in London, tells The BMJ that any decision to isolate residents in those circumstances “must always be taken in the person’s best interests by their carers,” following the process outlined in the Mental Capacity Act. The DHSC has confirmed there is no change to this requirement. “If isolation will lead to a new deprivation of liberty or add restrictions to their care which they did not have before, then the law requires there to be an assessment for a deprivation of liberty safeguard under the Mental Capacity Act,” she says.

The key, Weereratne says, is if there is a real risk to life that engages article 2 of the European Convention on Human Rights, which there would be in congregated settings such as care homes. In this instance, a person may need to be moved out of the home temporarily or cared for on a one-to-one basis, for example with the help of family.

Care staff will often be the best placed to come up with practical solutions for residents who walk with purpose, says Adam Gordon, professor of the care of older people at the University of Nottingham, as they will know them well. He says one example he has seen is staff using mobile partitions to section off a corridor, so the person could still move freely around a part of the home.

“There are also a number of areas that have set up arrangements where care home staff can access dementia specialist nurses, who are able to give advice on pharmacological management to support the staff,” he says.

Rapid access to drugs
One issue that was only recently updated by NHS England and the DHSC was access to palliative care drugs. Existing law prevents care homes from keeping a stock of the drugs, and they must be supplied on a resident by resident basis.

Keeble says GPs had been asking for direction from NHS leaders “for weeks” but were told to “get on and create local policies,” which she says is “unforgivable.”

On 28 April the DHSC and NHS England published a standard operating procedure for a medicines reuse scheme in care homes. This will allow health professionals to reuse a medicine that is no longer needed by the person it was originally prescribed for, providing the criteria set out in the guidance are fully met.

Keeble and Gordon welcome this as a significant move forward. But Gordon adds that, while it is a step in the right direction, it is not a complete fix because it still does not allow care homes to keep a stock of palliative care drugs. He says this is needed so medical staff can provide “much more responsive” care.

“A number of care home residents often have quite complex palliative care requirements, but the end of life experience with covid-19 is quite a lot more distressing than, say, a standard community acquired pneumonia,” he says.

“This means care home staff have to be able to access palliative care expertise, and most importantly it means they need rapid access to palliative care drugs.”

Keeble says GPs and community health teams need to know who their care homes are, make contact with them, and make sure they’ve got access to technology in one way or another.

“The irony is there was lots of modelling in the early days and a massive focus on hospitals; but as ever, everyone just took their eye off care homes,” she says.

“The lesson must be learnt that we have a lot of people in care homes, and we have as many staff caring as we do in the NHS—they are as vulnerable, they are as much on the frontline, and they have been neglected for years.”

Back at Broomgrove Trust in Sheffield, Pierpoint is feeling the burden of this neglect: “There’s a long way to go, there isn’t light at the end of the tunnel yet. We’ve still got to keep going.

“I’m still scared that we may well get it. I just hope that we continue now to get the support, that the PPE does ramp up, and that we can get on top of this as a nation.”

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We’re looking at providing bereavement support
Maggie Keeble, GP

Isolation must always be in the person’s best interests
Aswini Weereratne, barrister
How NHS doctors are sourcing their own PPE

As central supplies of personal protective equipment fail to match the demand created by the pandemic, UK medics are taking matters into their own hands. Fran Robinson reports

Back in early March, before the covid-19 pandemic had taken hold in the UK and before PPE had become a household term, Sadaf Farooqi and Toni Vidal-Puig were already planning how to source stocks from China.

“We were in contact with friends and colleagues treating patients in other countries and were hearing that PPE was an issue. Although at that time stocks were adequate in the UK, clinicians were becoming nervous about the future availability of PPE,” says Farooqi, like Vidal-Puig, a professor from the Wellcome-MRC Institute of Metabolic Science in Cambridge and a specialist in obesity and metabolic disease research.

Farooqi and Vidal-Puig’s efforts are just one example of resourceful doctors around the UK increasingly taking the supply of PPE into their own hands, to deal with the twin scandals of equipment shortages and the death of healthcare workers.

Leading a team of clinicians, biomedical scientists, and engineers, Farooqi and Vidal-Puig launched an appeal—4CPPE (www.4CPPE.com), backed by the University of Cambridge—aiming to raise £5m and they are working with academic colleagues in China to source high grade items for the East of England region.

Vidal-Puig has an academic collaboration with Daping Chu at the Cambridge University-Nanjing Centre for Technology and Innovation, whose team offered to help by identifying reliable suppliers of PPE. They have already sent donations of 4000 gowns and 20 000 surgical masks to Cambridge. Chinese entrepreneurs, some of whom trained at Cambridge, are helping to arrange air freight.

Vidal-Puig says, “We are in contact with academics and their teams who know what is happening in China. This is a perfect example of academic collaboration across countries and of the trust you build up over time, which is incredibly helpful at a time of crisis.”

**Community spirit**

Concerned that his practice had very little PPE and almost no eye protection, Greg Irving—a GP in St Helens, Merseyside, and an academic at the University of Cambridge—put out a call for help through his local coronavirus support group. He uploaded a verified design for a face shield and asked whether anyone could make them on a 3D printer. Within six hours he had the first one on his desk.

Volunteers set up an appeal and very quickly raised £3000. Several other local organisations soon came on board, including the Steve Prescott Foundation, a charity that is helping to obtain the materials. The comedian Johnny Vegas, who works with the charity, has been raising awareness of the initiative and helping with deliveries.

The group has so far produced about 3500 face shields. Half have been supplied to the local primary care “hot hub,” and the rest have been sent to other GP surgeries, acute trusts, the local hospice, district nurses, and care homes. The group is now making plastic door openers to protect people’s hands from infection.

Irving says, “We have had individuals, schools, colleges, and the chamber of commerce working on this—everything we have asked for has been done.”

A few weeks ago a similar small initiative to supply face shields was launched by James Moxon, a palliative care doctor from Pembury in Kent with an interest in technology, and it has spiralled into an organisation with a million orders. 3D Crowd UK (www.3dcrowd.uk) began as a post on a website. This led to a crowdfunding campaign that has attracted 8000 offers of help from hobbyists and professionals with 3D printers.

Moxon has since withdrawn from the initiative, to focus on his clinical work. A spokeswoman said the campaign group was constantly hearing how urgently frontline staff needed this equipment. She said, “The desperation is palpable when we speak to them on the phone. More than once we’ve had tearful senior physicians pleading with us for anything we can send.”

**Repurposed snorkel masks**

A group of six plastic surgeons at the Oxford University Hospitals Trust have also formed a campaign, Oxford InSpired (www.crowdfunder.co.uk/new-development-of-reusable-ppe-for-nhs-staff), to raise funds to develop a new face mask that they say provides safer protection than standard equipment.

The mask, adapted from commercially available snorkel masks, can be cleaned and reused. A prototype mask has been created and is being tested and certified. Once this process is complete, Oxford InSpired will start mass producing and distributing the masks. Each costs £50 to produce, and the group aims to raise £150 000.

One of the plastic surgery registrars is Ryan Kerstein, who says their trust currently has adequate PPE supplies but that they are concerned about colleagues around the country who may not be as fortunate. He says, “Although supplies are being distributed, the speed at which they are being consumed and the length of time we are likely to be treating patients with covid-19 will likely cause ongoing...”
shortage and supply problems for the foreseeable future.

“Looking ahead, we are likely to be using level 2 PPE for many months if not years to come. Therefore, even in areas where supply is currently adequate, this may not be sustainable.” (Level 2 PPE requires the user to wear a respirator mask and eye protection when performing aerosol generating procedures.)

Celebrity donations
A neurosurgeon, a physician, a GP, and a businessman have launched an appeal to raise £200 000 to buy PPE from China—and have collected more than £2m in just a few weeks. Masks for NHS Heroes (www.crowdfunder.co.uk/masks4nhsheroes), was boosted when the actor James McAvoy (below left); GP Greg Irving’s appeal led to 3500 face shields being made locally; Ryan Kerstein’s team of plastic surgeons created kit from repurposed snorkel masks

From left: PPE imports from China delivered to Masks for NHS Heroes, which is backed by actor James McAvoy (below left); GP Greg Irving’s appeal led to 3500 face shields being made locally; Ryan Kerstein’s team of plastic surgeons created kit from repurposed snorkel masks

One of the group’s doctors, Ravi Visagan, a neurosurgery registrar at King’s College Hospital, says, “Healthcare workers on the front line without PPE is the equivalent of going to war without armour and protection.”

Royal scrubs and chef’s trousers
Penelope Law, obstetrician at Hillingdon Hospital and the Countess of Bradford, has been using her contacts to source PPE; persuading the royal couturier Stewart Parvin to make scrubs, and Dennys Brands, a supplier of hospitality uniforms, to supply 1000 chef’s trousers. When her hospital ran out of towels, Law contacted a sales director at Primark, which sent a truck—branded with “We love the NHS”—filled with packs of towels, each packaged with “thank you” notes. And while in Marks & Spencer, Law noticed the staff wearing visors; she made inquiries and contacted a Loughborough based company called SDI, which sent her 100 visors free of charge.

She agreed to be interviewed by the Daily Mail after its proprietor, Lord Rothermere, pledged to send a plane to China to obtain £1m worth of equipment. She has sent him her shopping list, which includes ventilators and CPAP machines.

Law says that she is not surprised at the efforts doctors are making to source their own equipment. She says: “Clinicians know what is important, and they are much more used to making fast decisions. We are aware that anybody could get ill. I’m just trying to make sure that everybody’s protected.”

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Clinicals know what is important. They are also used to making fast decisions
Penelope Law

Respondents’ comments included:

“Elective caesarean sections were cancelled today due to the non-availability of long sleeve surgical gowns.”

“There is collection and laundering of single use water resistant surgical gowns.”

“We are reusing gowns and visors now. FFP3 masks are in short supply. Surgical masks are now running low and being rationed.”

THE GAPS IN NHS STOCKS OF PPE
The BMA is running snapshot surveys of doctors’ access to PPE. In the latest survey, conducted with more than 6000 respondents in mid-April, just under a third of doctors said that they were sometimes pressured to work without adequate protection. Almost one in five doctors did not feel safely protected at work.

One doctor said that the levels of PPE were like being “thrown to the wolves.”

The Doctors’ Association UK and Messly, a team of doctors and tech experts, have collaborated to create the NHSppe.com app, which collects real time data about stock levels of PPE from the NHS front line.7

Data collected up to 27 April from 1095 respondents from 257 hospitals and general practices showed that:

• 38% of respondents reported having no eye protection
• 23% of respondents performing aerosol generating procedures (AGPs) had no eye protection
• 38% of respondents performing AGPs had no FFP3 masks or hoods (the highest level of protection)
• 47% of respondents performing AGPs did not have long sleeved gowns, and
• 60% of respondents had not been fit tested for FFP3 masks.

Respondents’ comments included:

“Elective caesarean sections were cancelled today due to the non-availability of long sleeve surgical gowns.”

“There is collection and laundering of single use water resistant surgical gowns.”

“We are reusing gowns and visors now. FFP3 masks are in short supply. Surgical masks are now running low and being rationed.”
What the law says about PPE responsibility

Andy Cowper

Who is legally responsible for providing PPE?

James Down, a partner at the law firm Hempsons, explains that under section 2 of the Health and Safety at Work etc Act 1974 (HSWA) employers have a duty to ensure the health, safety, and welfare at work of all their employees “so far as reasonably practicable.”

The duties enshrined in the HSWA reflect the obligation under common law on employers to take reasonable care to ensure a safe system of work and safe equipment, he says. This includes a duty to provide and maintain equipment, systems of work, and a working environment that are safe and without risks to health.

In addition to the HSWA, other regulations expand on employers’ specific duties, including the 1992 Personal Protective Equipment at Work regulations (the PPE Regs). These state that employers must provide staff with suitable PPE unless risks to their health and safety have been adequately controlled by other means. For NHS staff employed on national contracts, the legal responsibility for the supply of PPE sits with the trust that employs them.

“Under section 33 of the HSWA, breach of the PPE Regs may amount to a criminal act,” Down says.

What are the legal requirements?

Down explains that, according to the EU PPE directive, PPE should be relied on only where the risks posed by work cannot be avoided by other means. But, he says, in the healthcare context the reality is that this “last resort” is often going to be the first line of defence.

The regulations state that, to be suitable, PPE must be appropriate for the risks and the conditions under which it is used; take account of the user’s health, ergonomic requirements, and workstation; fit the user; and be effective in dealing with the risks without increasing the overall risk.

Who is responsible for enforcing breaches?

For most workplaces in England and Wales, including hospitals, the regulator is the Health and Safety Executive (HSE). This includes having responsibility for enforcing statutory duties under the HSWA and associated regulations, such as those relating to PPE.

“HSE inspectors have the power to take enforcement action if breaches of the law are found,” Down says. Hospitals in breach could be served either an improvement or a prohibition notice.

Why is no enforcement being carried out?

Down points out that HSE inspectors typically physically visit workplaces to check compliance with the law, and there is little chance that such visits would take place in the current circumstances.

“It is unlikely that HSE inspectors will be conducting inspections to ensure compliance,” he says. “Inspectors would themselves also need to be provided with PPE in order to be able to safely observe how medical care was being provided.”

He adds, “It is unclear whether the public would be supportive of the HSE taking enforcement action against hospitals.

“Furthermore, an HSE inspector is very unlikely to serve a prohibition notice, because it would prevent the healthcare provider from providing medical care. Therefore, while the HSE has the statutory powers to act, there are practical and political obstacles to the use of HSE’s powers of enforcement at the present time.”

Can NHS staff take their own action against trusts?

Adrian Mansbridge, a legal director at the law firm Addleshaw Goddard, says that employers could face civil claims from employees. “Where employers breach their duty to employees or to the public under health and safety law, this may open them up not only to prosecution by regulators but also potentially to civil claims by those who suffer injury as a result, where negligence can be proven and where this can be demonstrated to have given rise to injury on the basis of medical evidence,” he says.

How can patient needs and staff safety be balanced?

NHS chief executives are the accountable officers of every trust, and so technically responsible for their employees’ PPE. But John Coutts, policy adviser for governance at NHS Providers, says trust boards of directors face duties that pull in potentially different directions.

“They have both a duty of care to employees and a duty of care to patients, to whom they must provide appropriate treatment for the patient’s condition, which might mean asking staff to do things that in other circumstances they would avoid,” he says.

Coutts says that there is a “potential tension” between a trust’s duty to its staff and that to its patients. “The job for directors is to think long and hard about what the balance of these two duties is: to manage and mitigate risks accordingly,” he says.

“The well documented issues on PPE bring this into sharp relief. NHS trust leaders are working very hard on risk management processes right now, to ensure staff and patients are safe.”

What if an employer can’t source enough equipment?

An employer may be unable to obtain PPE despite reasonable effort. Could the employer use what is termed a “force majeure” argument in its defence? “A force majeure clause in effect suspends obligations under the contract and may entitle a party to terminate the contract if the force majeure event is prolonged,” explains Bill Gilliam, a partner at Addleshaw Goddard’s dispute resolution practice. Whether a force majeure argument applies to a contract would depend on the particular clause and the actual effect of covid-19 on the performance of the contract, Gilliam says. Such clauses can’t be implied unless they are specified in the contract, but they can apply to every contract between parties for a supply of goods or services where the contract has a specific force majeure clause.

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