

# Why Infectious Diseases are a Huge Problem (Again)

BY DR VERNON COLEMAN - 6TH OCTOBER 2022

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A few decades ago, the development of antibiotics led many people to believe that the threat offered by infectious diseases had, to a large extent, been conquered.

But a combination of greed and stupidity has changed all that.

The effectiveness of antibiotics has been dramatically weakened by three main groups: the companies making them, the medical profession and the farming industry. Each of these groups has acted irresponsibly and dangerously. Since they cannot possibly have been unaware of the impact their actions would have, it is impossible to avoid the conclusion that the effectiveness of antibiotics has been deliberately destroyed for short-term profit.

The drug companies, the medical establishment and the farming industry will together be responsible for millions of deaths around the world. The politicians who have stood to one side and allowed all this to happen must share the responsibility.

During the last few decades simple, widespread infections have been striking back and re-establishing themselves as serious threats to our health. Today, our hospitals are dangerous places for the healthy – and far too dangerous for the sick.

In 1952, virtually all infections caused by staphylococcus could be cured by penicillin. But just 30 years later, a worrying 90% of patients infected with the staphylococcus bug needed treatment with other antibiotics. Western doctors didn't worry about this because they had other antibiotics to prescribe. With remarkable arrogance, the medical profession in America and Europe assumed that it could always stay one step ahead of the bugs. What many doctors failed to realise was that yeasts, fungi and bacteria have been producing antibiotics more or less since time began. They use the antibiotics they make to protect themselves. Other yeasts, fungi and bacteria mutate naturally in order to protect themselves against those antibiotics. Through a mixture of ignorance and arrogance doctors speeded up the rate at which bugs acquired resistance, by spreading antibiotics around with reckless abandon. Overwhelmed by reckless enthusiasm, doctors started routinely giving antibiotics to all the patients whom they thought might be at risk – and this category often included all those

patients who were destined for surgery. The prescribing doctors either didn't realise or didn't care

that by dishing out antibiotics so freely they were giving the bacteria a greatly increased chance of acquiring immunity.

Staphylococcus has not, of course, been the only bug to become resistant and the Western medical establishment, constantly afraid of offending the drug companies, has done everything possible to stifle protests and warnings about the consequences. Today the future is truly bleak. Infectious diseases which we thought we had conquered are coming back with a vengeance. More and more people are dying of simple, uncomplicated infections. The bugs are getting stronger. And our ability to kill them is diminishing almost daily.

Today, one in six prescriptions is for an antibiotic and my educated guesstimate is that between 50% and 90% of all these prescriptions are unnecessary or inappropriate. To a certain extent doctors over-prescribe because they like to do something when faced with a patient – and prescribing a drug is virtually the only thing most of them can do. And to some extent prescribing a drug is a defence against any possible future charge of negligence (on the basis that if the patient dies it is better to have done something than to have done nothing). But the main reason for the over-prescribing of antibiotics is, without doubt, the fact that doctors are under the influence of the drug companies. The makers of the antibiotics want their drugs prescribed in vast quantities. It makes no difference to them whether or not the prescriptions are necessary.

Things are made worse by the fact that although antibiotics have been around for over half a century, and the drug companies making them must have made billions of dollars in profits, no one yet knows how long antibiotic tablets should really be taken for when treating any specific condition. Should you take an antibiotic course for 5, 7, 10 or 14 days? The bizarre truth is that your guess is probably as good as your doctor's and his is probably as good as the drug company's recommendation.

The over-prescribing of antibiotics would not matter too much if these drugs were harmless and if there were no other hazards associated with their use. But antibiotics are certainly not harmless. The unnecessary and excessive use of antibiotics causes allergy reactions, side effects and a huge variety of serious complications – including the ultimate complication: death. And, of course, there is also the very real hazard that by overusing antibiotics, doctors are enabling bacteria to develop immunity to these potentially life-saving drugs. There is now no doubt that many of our most useful drugs have been devalued by overuse and are no longer effective. The overprescribing of antibiotics is extraordinarily dangerous and constantly underestimated. It is far more of a threat to human life, and more of a threat to our future, than terrorism. The unnecessary antibiotics we have swallowed

by the ton have weakened our general resistance to infection and paradoxically, strengthened the power of the bugs.

The existence of many antibiotic-resistant organisms is the main reason why infections are such a major problem in hospitals. Alarmingly, at least 1 in 20 of all hospital patients will pick up an infection in hospital – mostly urinary tract, chest or wound infections. The spread of these antibiotic-resistant organisms is mostly caused by doctors and nurses failing to wash their hands often enough. The problem is so great that the extra costs incurred when doctors have to prescribe increasingly expensive antibiotics are beginning to add an enormous burden to all those responsible for providing health care facilities. In America, the extra cost of dealing with antibiotic-resistant organisms is many billions of dollars a year.

Partly thanks to doctors and drug companies, the future is truly bleak. Infectious diseases which we thought we had conquered are coming back with a vengeance. More and more people are dying of simple, uncomplicated infections. The bugs are getting stronger. And our ability to kill them is diminishing almost daily.

However, the problem isn't entirely the result of overprescribing by doctors. The overuse of antibiotics by farmers is another big reason why infectious diseases are making a dramatic comeback. Astonishingly, considerably more than half of all the antibiotics sold are given by farmers to healthy animals.

Farmers claim that their animals are only given antibiotics when they have been recommended by a vet. Of course this is true. Farmers cannot buy antibiotics without a vet. But sadly, there are enough money hungry vets around to make sure that any farmer who wants to give his animals continuous doses of antibiotics will have no supply problem. I talked to one vet who regularly prescribed huge quantities of antibiotics for farmers to give to healthy cattle.

'Don't you realise that what you are doing is endangering the lives of millions of human beings?' I asked him. He shrugged; he clearly knew I was right but clearly didn't care. 'Why do you do it?' I asked him. 'The farmers demand them,' he said with blunt honesty. 'If I don't prescribe antibiotics someone else will and I'll lose the farm business.'

Why do farmers give their animals so many antibiotics?

Well, some, of course, are prescribed to help prevent (and treat) disease. Animals on modern western farms are exceptionally susceptible to disease because they are kept in overcrowded conditions and they are constantly highly stressed. Antibiotics help to keep sick animals alive long enough to be slaughtered and fed into the food chain. Antibiotics are also given because they help to stop diseases spreading quickly among animals who are kept in cramped and entirely unnatural conditions. When

animals live in hideously confined quarters it is nigh on impossible to stop infections spreading without using antibiotics. Many American and European farmers routinely put antibiotics into the feed they give their animals to prevent infections developing. The antibiotics that are dished out in this grossly irresponsible way are often the same antibiotics that are becoming dramatically less effective in the treatment of human diseases.

But farmers don't just give antibiotics to animals in order to deal with disease. They also put antibiotics into their animal feed in order to promote growth. Antibiotics increase the muscle bulk of animals – and therefore increase their value and the farmer's eventual profit.

The process by which antibiotic resistance develops on farms is simple to explain. When animals are given antibiotics, the bacteria in their intestines build up an immunity to those antibiotics. Those antibiotic-resistant organisms then pass on to farmers and others who have contact with the animals. They pass into the environment (even though most animals are denied access to fields, their faeces and urine still reach the environment when they are dumped onto fields or discharged into rivers). And, of course, the antibiotic-resistant organisms pass into the food chain directly when animals are killed, chopped up and eaten by humans. When milk in the USA was tested, researchers identified 52 different antibiotic residues.

Between them, doctors and farmers have put us all at risk. Around the world, millions of innocent people will die because bugs have now acquired immunity to previously valuable antibiotics.

The problem is exacerbated because our hospitals are filthy and the people who staff them probably can't even spell hygiene. Having talked to many doctors and nurses, I am convinced that most don't know the basic principles of how diseases are spread – and how they can be controlled. An unhealthy majority, for example, seemed unaware that there is an important difference between an 'infectious' disease (spread through the environment – including by air) and a 'contagious' disease (spread by contact).

I quizzed a dozen doctors and nurses in a large NHS teaching hospital in Exeter, including several who had specific responsibilities for controlling the spread of infections such as MRSA and C.difficile and none of them seemed to me to understand the basic principles of disease spread.

Quite senior NHS personnel have tried to convince me that gastrointestinal infections are transmitted through the air and that this, not poor hygiene practises, explains why such bugs tend to sweep through hospital patients.

When I produced evidence showing that they were wrong (although it is possible for bugs to be transmitted via an aerosol route, the vast majority of infections are spread by poor hygiene) two members of NHS staff then tried to argue, apparently quite seriously, that bugs behaved differently in hospitals to the way they behaved elsewhere. One doctor insisted that bugs which are spread only

in hospitals to the way they behaved elsewhere. One doctor insisted that bugs which are spread only by touch outside hospitals can be airborne inside hospitals. It is, perhaps, hardly surprising that staff don't bother to wash their hands and don't understand the importance of obeying the simplest rules about hygiene. And it is hardly surprising that the number of people dying from infections is rising dramatically. If you don't know how a disease is contracted you aren't likely to have much success in preventing its spread. Many doctors and nurses don't even seem to realise that common causes of vomiting, such as the norovirus, are spread largely through inadequate cleaning of contaminated wards.

I have, since the 1970s, been warning about the return of serious infections. The rise and rise of problems such as C.difficile and MRSA was quite predictable. And other bugs will come back in a big way too. In my book *Paper Doctors* (1977) I pointed out that two things would result in a rise in infectious diseases: a lack of hygiene in hospitals and the abuse of antibiotics. I also predicted the rise in antibiotic-resistant infections.

In practice, avoiding infections such as MRSA and C.difficile is not difficult.

The best way to avoid them is to clean hospital wards and to persuade doctors, nurses and other members of staff to wash their hands in between seeing patients. But NHS hospitals are institutionally dirty. Public lavatories in France are cleaner than British hospitals. The area between beds is swept but the area under the beds is left dirty. Equipment is often filthy. Communal baths, showers and toilets are disgusting. Staff don't understand anything about hygiene. And no one cares.

Nothing is done about these problems because the complaints system is designed to protect the system rather than the patient. Hospitals are not interested in learning from their errors. They are only interested in denying the truth and avoiding responsibility. Medical records are kept not only to provide information but also with one eye on future litigation. One of the problems is that hospital staff (like other public service employees) are almost impossible to sack. When one former NHS chief executive was forced to resign her £150,000 a year job over Britain's deadliest superbug outbreak, she demanded a £150,000 pay off. The woman left her job after at least 90 patients died from C.difficile. And shortly after leaving her NHS job she set up a healthcare consultancy company (presumably, to tell the NHS how to improve hospitals). She set up the company with her partner who had quit a senior NHS job after the trust where he worked accumulated debts of £30 million. It seems that those who do leave the NHS are well compensated for their failure. And the concept of 'shame' seems as alien to the modern bureaucrat as the concept of 'duty' or 'responsibility'.

When the Healthcare Commission performed unannounced tests at 51 NHS Health Trusts, they found that nine out of ten of them had failed to meet hygiene standards put in place to reduce hospital infections. Two out of three hospitals did not complete a deep clean of their wards before a deadline set by the Government.

The result is that thousands of patients die every year in NHS hospitals because patients acquire lethal but avoidable infections. No one ever apologises. It is rare for anyone to be disciplined. Drivers go to prison if they are convicted of dangerous driving so why don't hospital staff go to prison for dangerous practices? If they did then I suspect that there would be far fewer unnecessary deaths in our hospitals. Twice as many Britons are killed by hospital infections as are killed on the roads. The total number of deaths from hospital superbugs such as MRSA and C.difficile is now well over 5,000 a year. The reason? Filthy wards, unhygienic practices, scandalously poor cleaning, grubby operating theatres and staff who never wash their hands. There are more such infections in British hospitals than anywhere else in the world. Why? British hospitals are dirtier than hospitals anywhere else in the world. Why? The staff in British hospitals are the most incompetent hospital staff in the world. The biggest danger these days is not visitors taking bugs into hospitals but staff taking drug resistant bugs out of hospitals. Other than district nurses visiting patients at home, staff who wear their uniform outside a hospital or health centre should be fired instantly.

The rise in the incidence of superbugs is a phenomenon almost unknown outside the NHS and in my opinion it is a direct result of poor management and appallingly low standards of nursing. In the Middle Ages, patients used to keep out of hospitals whenever they could – knowing that a hospital stay could well prove fatal. Things aren't much different today. Most hospitals should have a Government health warning hanging over the front door. And the staff should have health warnings stamped on their foreheads. I wouldn't license most of them as abattoirs.

Since Ignaz Philipp Semmelweiss first demonstrated (in the mid-19th century) that deaths in the delivery room were caused by dirty hands, every child has been taught the importance of basic personal hygiene. Sadly, the message does not seem to have got through to the medical and nursing professions. Countless studies have shown that hospital staff just don't bother to wash their hands. A study of doctors' habits showed that two out of three anaesthetists failed to wash their hands before treating a new patient (even though anaesthetists frequently perform venepuncture surgery) while one in three surgeons did not wash their arms properly before an operation. At least one-third of all hospital infections are caused by dirty hands.

The cost of all this in simple financial terms is colossal.

Treating hospital contracted infections uses up around 15% of the hospital budget in the UK and adds around a week to each patient's hospital stay. The cost in human terms is incalculable: tens of thousands of patients die because of bugs they've caught from doctors, nurses, other staff or contaminated equipment. These aren't statistics: they are people. Real people. Every one of those unnecessary deaths is someone's wife, husband, mother, father, son, daughter, uncle, aunt, friend or neighbour. And remember, most of those patients die because doctors and nurses can't be bothered

to wash their hands properly or because operating theatres aren't properly cleaned between operations.

The medical answer is – surprise, surprise – often to prescribe antibiotics, and a third of hospital patients end up taking them. It now takes 50 times as much penicillin to treat an infection as was required 30 years ago.

There is no doubt that antibiotic-resistant bacteria are now commoner in the UK because of the sloppiness in NHS hospitals as well as the bad prescribing habits of doctors.

It is hardly surprising that people who stay at home to be treated – or who go home quickly after day-case or short-stay surgery – usually get better much quicker than people who need long-stay treatment and who have to go into hospital.

It is because NHS hospitals are so filthy that there are more food related infections in the NHS than in the seediest, most disreputable restaurants. Hospitals which are home to rats and cockroaches (as many NHS hospitals are) are an excellent breeding ground for bugs of all sorts. Dirty hospitals are dirty because they are badly managed and because the staff are lazy or incompetent.

Attempts to deal with this embedded problem range between pathetic and laughable. An NHS hospital in Buckinghamshire was reported to have recorded a rap song to help staff learn how to wash their hands. The song apparently included the lyrics: 'Now clean between your fingers, just in case the bad bug lingers'. The hospital produced a video in which nurses wearing back to front baseball caps and bling jewellery stamped along to the beat. This was not a Christmas party joke and nor was it intended for children. This was a serious attempt to teach NHS staff how to wash their hands.

Nurses have even called for a vaccine to stop hospital infections spreading. It is, I suppose, easier to give a vaccine than to wash your hands.

The real problem is that hospital staff just don't seem to understand how infections spread. I have been appalled by the ignorance of doctors and nurses I've spoken to.

For example, it is common to see nurses in shops still wearing their uniforms, complete with dubious looking stains. Nurses who wear their uniforms out of the hospital environment are showing just how ignorant they are. Bugs are transferred both ways. Nurses bring dangerous antibiotic-resistant bacteria out into the community and they take infections back into the hospital with them. Nursing staff should change their clothes whenever they leave the hospital where they work. And doctors working in hospital should always wear freshly laundered white coats.

There is now no doubt that infections are a major killer in our hospitals. Watch the cleaners at work

and you'll see them slide a mop down the centre of the ward. It's known in the mop wielding business as 'taking the mop for a walk'. They then wander off into their staff room for a tea break. And then

serve patients their food. Staggeringly, the same people who clean the ward then serve patients their food. No one seems to see anything odd in this. The cleaners do not, of course, wash their hands between these two activities.

Cleaning staff (sorry, I think they now have to be called 'housekeepers') do not appear to have been told that they too must obey the basic rules of hygiene. The Government would save far more lives if it took down speed cameras and, instead, put up cameras in hospitals to check that nurses, cleaners and doctors wash their hands properly. Such a simple action would save billions of pounds and thousands of lives a year. Nurses who are spotted moving from patient to patient without washing their hands should be fired and banned from ever working in health care again.

The bad news is that things are going to get much, much worse I'm afraid. If Health and Safety operatives really want to save lives they should stop worrying about irrelevant 'health threats' and concentrate all their efforts on hospitals.

In the future, two things are likely to happen.

First, the number of serious, deadly infections in our hospitals will rise. There will be periods when the infections will appear to be under control. But they will not be. Our hospital staff are institutionally lazy. Incompetence and ignorance are defended, protected and rewarded with promotion.

Second, the superbugs will escape from hospitals and start to kill people in their homes and places of work. It is already happening. Medical officers in Holland have found that 50% of Dutch farmers are carrying a new strain of MRSA that is passed from hormone-fed pigs to humans. Already, a new, more virulent strain of MRSA has been found in the community. And the number of elderly people killed in care homes by the superbug *C.difficile* has officially tripled. (Since killer bugs are often not mentioned on death certificates, the true figure is undoubtedly far higher than this.) This sad development is hardly surprising when one considers that nurses and local authority personnel who have responsibility for standards in care homes were trained in our largely incompetently run hospitals.

Doctors were close to taking control of infectious diseases.

But through a potent mixture of stupidity and greed they failed to consolidate the work of researchers who'd built on Fleming's discovery.

And today, infectious diseases are again a major threat to us all.