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“We need to rethink the system”

Lessons from the SARS-CoV-2 pandemic for the future of healthcare

By Anja Störiko

Experts from Goethe University and University Hospital Frankfurt agree: Germany has benefited from its healthcare system during the pandemic. However, they see a pressing need to make up ground in some areas, such as the structure of the healthcare system and in digitalisation. Only so can we prepare ourselves for future crises such as climate change.

The pandemic has acted like a microscope, revealing the strengths and weaknesses of our healthcare system,” says Professor Ferdinand Gerlach, director of the Institute of General Practice at Goethe University. The current crisis is a stress test from which we can learn a lot, he says. “Germany has come through the pandemic comparatively well,” emphasises Professor Jürgen Graf, medical director and chairman of the board of University Hospital Frankfurt. Their verdict has been confirmed by figures from international comparisons, for instance a mortality rate that is lower than in many neighbouring countries.

Both agree that Germany has benefited from its structures for outpatient treatment and its regional structures during the pandemic. “The general practitioners here have taken on much of the workload so that the hospitals were not overwhelmed with mild cases, but instead able to provide severe cases with the appropriate care,” says Graf. Over 90 per cent of cases were treated as outpatients. Gerlach adds: “This has also protected us from deadly chains of infection such as that seen in Bergamo, where patients, staff and emergency services in hospitals became hotspots.”

High number of beds failed to help Italy in the crisis

Northern Italy actually had sufficient intensive care beds. However, in the spring of 2020 there was a shortage of nurses, doctors and equipment in Bergamo, and apparently it was easier to transfer intensive care patients from Lom-

bardy to Germany than to the neighbouring province of Veneto – the high number of beds alone was of scarcely any use in the pandemic: “What’s important is quality, i.e. highly efficient hospital structures, and not quantity – lots of beds,” says Gerlach. Nowhere else in Europe are there more intensive care and normal hospital beds than in Germany. Yet at the height of the second wave of the pandemic as many as 150,000 beds were empty. And the very high hospital capacities have their downside: Occupying these beds is a financially attractive proposition. The consequence is more operations than the European average: more than three times as many heart catheter procedures, twice as many hip and knee replacements, as well as tonsillectomies in children – yet by no means better health overall.

In this country, many hospitals are literally obliged to advertise operations in order to recoup the cost of their equipment and beds. This is neither in the interest of patients nor of the healthcare system. “We need to ditch these false incentives and establish quality criteria that are appropriate for health and also in economic terms,” says Graf. “Nowhere else are so many operations performed at so many hospitals!” And each doctor and nurse has to look after more patients than anywhere else in Europe. As a result, Germany is in the top group in a European comparison for per capita expenditure on healthcare: At almost € 5,000 per capita in 2019, it was 40 per cent higher than the EU average.

Many small hospitals perform certain operations only a few times a year. A study two years

Shortage of staff in local health authorities: In many towns and cities, soldiers provided administrative support during the crisis, for example in the area of contact tracing, like here in Frankfurt am Main.



Photo: Aeronautica Militare/Wikimedia Commons

Cervia, Northern Italy, in March 2020: The Italian air force uses special biocontainment beds to transfer gravely ill and highly contagious COVID-19 patients from overcrowded hospitals.

ago by the Bertelsmann Foundation revealed that 40 per cent of hospitals perform operations without adequate expertise. Yet the figures are clear: Only where operations are performed frequently – and a certain minimum number are performed – is optimum care guaranteed. “We have to utilise resources more effectively, shifting from superfluous operations to better care, to a concentration of expertise in centres of competence, and to primary care at local level,” demands Gerlach. “Because this is precisely what the pandemic has shown: Only hospitals with special diagnostic equipment and ventilators, as well as the corresponding specialist staff, were capable of treating the most severe cases, while the overwhelming majority of mildly ill patients received the best possible care locally, without having to utilise expensive technology (let alone make full use of available capacities).”

Specialist hospitals, local care

Both experts are in agreement that the coordination and division of labour in the federal state of Hessen succeeded comparatively well during the crisis thanks to a planning team: Severely ill patients were treated in high-performance specialist hospitals, whereas mildly ill patients were treated close to home. This should be the overall objective of needs-based healthcare, they say: For example, it is a proven fact that heart attack and stroke patients receive better care in specialist hospitals, even if it takes a little longer to transport them there. “Ultimately, patients have to go where care for his or her illness is best – and they also want to go there as a rule,” says Gerlach. Graf adds: “And not every hospital

should offer what it wants to and is supposedly capable of.”

Denmark, for example, has decreased the number of its hospitals accredited for the treatment of heart attacks from more than 50 to about 20 over the past twenty years – since then, heart attack mortality has been halved. In the case of Germany, this would equate to 7,000 avoidable deaths.

Local healthcare providers need to receive greater support

“In the future, we need to be quite clear about who performs which tasks in our health system and when,” says Gerlach. He recommends local healthcare centres comprising larger or networked practices, for example with beds, nursing services and pharmacies, to ensure optimum healthcare at local level. “In addition, general practitioners and hospitals need to work together more closely. It would then be conceivable, for example, for a patient to be transferred from a specialist hospital to a centre closer to home just a few days after an operation, which would make it easier for relatives to visit.” Nursing services could also be better networked at local level, he says, for example through mobile teams. “It would allow us to avoid chains of infection in a pandemic, such as those we experienced in Italy, France and Spain with a centralised healthcare system – and also in the event of multi-resistant germs and flu viruses,” emphasises Gerlach.

Graf calls for the restoration of a balance between demand and needs: “At the moment, the German population goes to the doctor about three times more often than other Europeans. In the A&E departments of our hospitals in

IN A NUTSHELL

- The division of labour in Germany between outpatient care and hospitals fundamentally withstood the problems posed by the pandemic.
- In future, tasks in the healthcare system have to be better distributed, for example, through public health measures for prevention, needs-based steering, specialist hospitals and an extensive network of healthcare centres close to people’s homes.
- Advances in digitalisation for optimum healthcare are overdue, including networking of all medical areas, coordinated acute and long-term care, and usable patient data.

April/May last year, we saw what real emergencies are – because contrary to what is usually the case the only patients were those with critical problems.” Local healthcare centres or practices, whose networks also allow for longer opening hours, could take care of everything else, he adds.

“However, in the future we have to give local providers greater support,” emphasises Gerlach. “At the beginning, there was a lack of equipment and concepts for care homes and practices, and later a shortage of tests and vaccinations.” Both experts agree that this requires central coordination.

Revive the public health service

“The many years during which the public health service was neglected have taken their toll; we have bled the local health authorities dry,” says Gerlach. There are around 400 local health authorities in Germany – but also only the same number of medical specialists working in public health. There is also a lack of networking between these authorities, which would be so important if people work in Frankfurt but live somewhere else, for example.

“Although COVID-19 has accelerated a few things in this respect, nothing happened for far too long before that,” says Gerlach. Above all, there is a lack of a superordinate structure: The Federal Health Office was disbanded in 1994 and never replaced. Yet neither the Robert Koch Institute nor the Federal Ministry of Health is responsible for coordinating the local health authorities or has power over them. “We need to fundamentally reposition and strengthen the public health service,” demands Gerlach. In his view, its tasks should also include preventive work, protecting vulnerable groups such as the elderly and people in care homes, organising protective equipment, testing capacities and hygiene concepts, but also precautionary strategies, for example in schools. “At the moment, our healthcare system is reactive: The patient goes to the doctor with a problem. The goal is a preventive system that is also precautionary, inhibits contagion, fosters early detection – our system is not made for this.” And this although such concepts are urgently needed, he adds: Climate change, for example, is endangering health; in 2018 alone, a particularly hot year, 20,000 more people died in Germany from dehydration and heatstroke than in average years.

The public health service has to take on new, central tasks here, says Gerlach. “These include fostering greater appreciation: The public image and remuneration – currently significantly below hospital levels – have to improve vastly. Public health also has to be a topic covered by medical students. At present, for example, pro-

spective physicians are not permitted to complete part of their practical year in a local health authority – Frankfurt is the only exception in this respect. During the pandemic, a large number of medical students helped the local health authorities with their quarantine, testing and immunisation strategies – it is important to build on this momentum.”

More digitalisation: Data help heal

The fact that the local health authorities are poorly equipped for digitalisation is criticised on all sides. A lack of equipment and personnel shortages prevent good networking and tracking, as well as prevention and precautionary structures. “Data help heal!” stresses Gerlach. To date, systematic documentation has scarcely been possible in Germany, which is why, for example, current data on side effects from vaccinations have

German ICUs such as the one here at University Hospital Frankfurt were able to concentrate on treating serious COVID-19 cases during the crisis, since general practitioners took care of most of the mildly ill patients.



POSITION PAPER ON MEDIUM- AND LONG-TERM LESSONS

by Boris Augurzky, Reinhard Busse, Ferdinand Gerlach, Gabriele Meyer

INTERIM REPORT AFTER THE FIRST WAVE OF THE CORONAVIRUS CRISIS IN 2020 (in keywords)

- 1 Public healthcare** as an independent pillar of healthcare: staffing, attractiveness for employees, links to science and primary care and to all policy areas.
- 2 Primary care for outpatients** by general practitioners, coordination and cooperation with hospitals and the public health service: pandemic plans, prevention strategies for old people's and nursing homes, as well as facilities for the disabled, digital networking.
- 3 Specialisation** as well as centralisation, cooperation: clarification at regional level regarding which hospital treats which patients and when. Treat diseases according to guidelines/quality standards as far as possible. "Quality before proximity" principle.
- 4 Integrated healthcare centres:** regional outpatient clinics, nursing services, outpatient operations, emergency care and primary care for inpatients, networked with central standard and maximum care providers.
- 5 Healthcare mandates** govern financing: define capacities based on performance, e.g. beds per specialist department, ventilators, ICU beds, staff. Reserve capacities for crisis cases. New remuneration models.
- 6 Place greater trust in nursing staff**, qualification mix with enhanced skills, e.g. in the event of complex multimorbidity and in order to avoid hospital admissions.
- 7 Digitalisation** of healthcare: exchange of information, also within the EU, linking of databases for better healthcare, coordinated emergency care to direct patients to suitable healthcare facilities. Electronic health record.



The author

Dr Anja Störiko, 56, holds a doctorate in microbiology. She works as a freelance journalist for popular magazines, is the editor of the specialist journal "BIOspektrum" and has written a number of books on health topics. Following the interviews with Professor Gerlach and Professor Graf, she implemented a decision she had been nurturing for a long time and registered for the electronic health record.

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mostly come from abroad, he explains. "Treating physicians and researchers need to have access to data and be able to use these to serve public welfare. Misperceived data protection costs lives. We should not just be worrying about what gets into the wrong hands, but also about important health data not getting into the right hands."

Graf sees less of an obstacle in digitalisation itself, but in the lack of benefits to date: "The technical prerequisites in hospitals and practices have been fulfilled, but data protection is obstructing the smooth exchange of data; there is a lack of incentive to network data because at present nobody benefits from it. Every doctor could immediately cut back on communicating by post and fax if there were a networked digital solution with real added value and without legal hurdles – starting with a patient's medical history, the transmission of diagnoses and X-rays, information on drugs taken, previous interventions, allergies, risk factors, immunisation status, as well as advance directives and living wills."

Call for electronic health record

As an example of this both experts praise the ICU bed register; this, visualises intensive care bed occupancy in Germany on a day-to-day basis and was introduced by the German Inter-

disciplinary Association for Intensive Care and Emergency Medicine (DIVI) when faced with the pressure caused by the crisis. "We can now provide our patients with better care and use existing capacities more efficiently," says Gerlach.

Similarly, he adds, the electronic health record also has to simplify and improve healthcare. "Lots of things would be easier: The record documents blood values, vaccinations, medication, decisions on organ donation, emergency information, allergies – the outcome is more efficient treatments, fewer duplicate examinations, better networking, less paperwork, convenient electronic prescriptions." At present, everyone in Germany who wants to be vaccinated is hunting around for their yellow vaccination card; in the future, there will also be the EU vaccination app – it would be much easier to store all this centrally in the electronic health record, as already long demonstrated by Denmark, Israel and Estonia, for example, says Gerlach. As chairman of the Advisory Council on the Assessment of Developments in the Healthcare System, he recently presented its recommendations on digitalisation in the healthcare sector to the general public: The "Wise Men of Health" advocate that in future every citizen should receive an electronic health record at birth or on arrival in the country, but that they

ABOUT JÜRGEN GRAF AND FERDINAND GERLACH



Professor med. Jürgen Graf

As medical director and chairman of the board, Professor Jürgen Graf, born in 1969, is responsible for the running of University Hospital Frankfurt. He studied medicine in Aachen and London, Canada, and was awarded a post-doctoral degree (Habilitation) in intensive care medicine in Marburg in 2007. After working in a number of hospitals and for Lufthansa's medical service, he became clinical director at Klinikum Stuttgart.

He has been medical director of University Hospital Frankfurt since 2016. As head of the planning team of the Hessian Ministry of Social Affairs and Integration for COVID-19 inpatient care, Jürgen Graf is responsible for coordinating the work of the various parties involved, such as hospitals, general practitioners, health insurers, emergency services and the public health service.

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Professor med. Ferdinand Gerlach

As director of the Institute of General Practice at Goethe University, Professor Ferdinand Gerlach, born in 1961, is responsible for research and teaching in general practice, which above all takes place in about 150 academic teaching practices and some 400 research practices. He studied medicine in Göttingen and public health in Hanover, where he earned his post-doctoral degree (Habilitation) in 1998. He was

appointed as director of the Institute of General Practice at Kiel University Medical Centre in 2001 before moving to Frankfurt in 2004. As chair of the independent Advisory Council on the Assessment of Developments in the Healthcare System, he advises the federal government, the German Bundestag and the German Bundesrat (see www.svr-gesundheit.de).

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should be able to disable it. "This would have tremendous benefits, as the pandemic has again shown – provided that we do not make it as complicated as presently planned, that declarations of consent are necessary before each use and that data can be deleted at any time."

Discussing healthcare

In their next report, the "Wise Men of Health" intend to consider how to prepare for and handle crises: What COVID-19 has now shown, they say, will occupy us more often and for longer in the future, for example due to climate change – the health system has to react to this and be better prepared.

Graf is convinced that "after the federal election, the topics of health and patient care will be discussed more broadly – otherwise we will no longer be as efficient in ten years' time as we are today". This is because welfare funds will then be exhausted, health insurers overburdened, nursing staff scarce, he maintains. "It is our job to make the facts and risks visible and heard – politicians need to get an idea of what is going on and make the corresponding decisions. The facts are on the table; what needs clarifying now is who is going to take responsibility for what volume of patient care and its quality." For this, he says, the government has to create the neces-

sary structures and establish a vision of what can be achieved with our healthcare system. "We need the courage and determination to rethink the system as a whole – that is what experts have to map out, then parliament has to adopt legislation before the federal states develop its final form." What is required, he adds, are incentives, carefully considered governance and quality criteria that reconcile optimum patient welfare with economic efficiency. Graf is convinced: "Our healthcare system is highly capable – we could have the best in the world."

The informed patient

"We have to win people over," stresses Gerlach. He calls for more public relations work and more educational measures with the aim of improving the population's health literacy. Every citizen can contribute here too: "I would like patients to show shared responsibility, ask questions and give thought to rather than passively tolerating what is going on – studies show that this contributes significantly to the healing process." Effective treatment requires not only a functioning healthcare system but also people who support it. ●