Editorial comment

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The on-going Covid-19 pandemic has had a pronounced influence on lifestyle, economics and medical care in almost every country in the world. We have encountered an unrivalled demand in hospitals for complex treatment for patients affected by the disease which, unfortunately, is associated with a high death rate. Although the situation might vary from one country to another, in general it has become necessary to allocate immense resources to cope with the advanced level of intensive care necessary to treat patients suffering from the virus.

Accordingly, it stands to reason that, with limited access to hospital beds and shortages of protective equipment and economic resources, the standard principles of surgical and medical care cannot always be applied. Obviously, it will be necessary for new approaches to health care and modified treatment strategies in almost all specialties.

For the treatment of patients with urinary tract stones, Gökce and co-workers in this issue of Urolithiasis have touched on one aspect of the huge problem discussed above and they have pointed out the need for changes in the pre-operative evaluation of patients with kidney stones with the aim of identifying those who are infected with Covid-19 or are Covid-19-positive. Such steps are considered essential (a) in order to protect and avoid unnecessary stress and risk of infection for hospital staff members, (b) to select the most appropriate anaesthetic regimen for the patient and (c) to take necessary precautions to prevent the further spread of infection. In the authors' multicentre study, not unexpectedly, it was shown that there was an increased proportion of stone patients who were treated more conservatively than usually is the case.

The report summarizes observations during the acute phase of the pandemic. The problem, however, is much more

extensive than that seen currently and it will almost certainly continue for a long period ahead. Although we lack detailed information on how different hospitals and health care systems have handled the current situation, it is highly likely that most centres will have stopped elective surgery of all types in order to conserve the total resources for the most urgent surgical procedures and the obligate and demanding care of patients with severe Covid-19 disease. The future consequences, when the pandemic has subsided, are that we will have to deal with a large number of patients who still require surgical treatment but for whom such procedures have been postponed. We can assume that patients with the most urgent surgical problems will have already been managed appropriately during the pandemic period but numerous patients with less acute problems will currently be awaiting treatment. Accordingly, there is an accumulating number of patients scheduled for future surgery in every surgical specialty. The longer the pandemic period lasts, the greater will be the problem. Overall, there will be a remarkably high future requirement for surgical facilities such as operating theatres and surgical teams, as well as an attendant anaesthesia service.

Whichever economic system is applied, it is beyond doubt that the need for future surgical intervention will be restricted by limited economic resources and by exhausted or insufficient numbers of health care professionals.

It is of note that more than 99 percent of the patients in the study by Gökce and co-workers were treated with endoscopic procedures. None of the patients had their stone problem managed non-invasively with SWL, although this treatment is possible to complete without access to an operating theatre and with only analgesics and sedatives without the requirement for a full anaesthetic service. The choice of endoscopic procedures certainly reflects the authors' preference for such methods, particularly as they specialise in that kind of stone surgery. Common arguments for preferring endoscopy are that the proportion of patients with residual fragments is significantly smaller after endoscopy than that following SWL. But, in many patients, asymptomatic

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residual fragments might be an acceptable outcome since it may not require further intervention within a reasonable time.

In cases of obstruction, decompression of the renal collecting system with percutaneous nephrostomy catheters or internal stents reduces the need for anaesthesia. This strategy can lead to even more saving of resources inasmuch as both procedures can be carried out with only local anaesthesia, with or without mild analgesics and sedatives, and usually without the presence of an anaesthetist.

The article by Gökce and co-workers does not provide detailed information on how the selection of the particular method for stone removal was made. Nevertheless, in the future there will be a cumulative large number of patients who will require to have their stones removed and it seems reasonable to assume that there will be some renaissance for SWL in order to avoid, as far as possible, the use of operating theatres and the requirement for the services of anaesthetists.

Finally, whereas asymptomatic residual fragments in many situations can be left without specific treatment, it would be wise to consider prophylactic measures to prevent further stone growth or new stone formation, a treatment modality that currently and for a long time has been ignored by too many urologists.

It is readily understood that the Covid-19 pandemic extensively has already affected the treatment strategies for patients with stone disease and that those consequences will remain for a considerable period of time even after we have left the acute stage of the pandemic behind. For the moment, it would be both wise and imperative to prepare for the problems ahead on how we should best manage patients with kidney stones.

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Compliance with ethical standards

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