# PRESERVING ELECTIVE SURGERIES DURING COVID-19: LESSON LEARNT FROM 2020

2020 was a really though year, especially for healthcare systems. The health and care workforce has had to overcome challenges, adapt, and collaborate in unprecedented ways to continue provide services to their citizens and help respond to this public health emergency. The start of the vaccination programmes in Europe has given a sense of relief; however, with the new strains of SARS-CoV-2, the challenges are still present.

At the start of the pandemic, European hospitals suspended elective surgeries and services in hope of reducing infection rates and preserving resources for the treatment of COVID-19 patients. These measures have resulted in a backlog of procedures with ongoing delays due to the overall diminished capacity of health systems. Amid this second wave, it is important to look back in 2020, discuss the lessons learnt during the initial outbreak and assess the most effective strategies that can be applied in 2021 and beyond to preserve elective surgeries.

Dr Ernst Kuipers, Chairman of the Executive Board of the Erasmus Medical Center, presented the case of the Netherlands. Before the start of the pandemic the Intensive Care Units (ICU) daily occupancy rate was approximately 800 patients across the 90 hospitals in the country. In March 2020, when the admission of COVID patients rapidly increased, the occupancy rate of non-COVID patients declined to approximately 300, and only included emergency services. Since admissions are not equal across all hospitals, some facilities were overwhelmed and only able to treat COVID patients. During this period, it is also estimated that over 1 million referrals from primary care to hospital care were missed.

In the summer 2020, due to the strict lockdown measures, the daily occupancy rate decreased for COVID patients and returned to normal for non-COVID patients. Since the start of the second wave, COVID cases increased again and although non-COVID cases were affected, the impact was not as significant as the first time. This was possible because at the start of the second wave, the Dutch National Emergency Network established a National Coordination Center, which had a daily, sometimes real-time, overview of available capacity (clinical and ICU) and occupancy rate across all the 90 hospitals in the country.

Using this information, the National Coordination Center was able to forecast the needed clinical capacity of each emergency region for up to 7 days and plan with the hospitals within each region. They started distributing evenly COVID patients to ICUs, then clinical floors across all hospitals, via ambulance, mobile ICU units, and helicopters. This allowed the hospitals to continue offering both emergency and elective services to non-COVID patients, as much as possible. However, the Netherlands is still experiencing backlogs. In the example of cancer diagnosis screenings, the backlog at the start of the pandemic resulted in late diagnosis for approximately 5.000 cases of breast cancer and 3.000 cases of colorectal cancer. Although the cancer screening numbers returned to normal, the Netherlands is seeing important changes in the number of diagnosis and is predicting a change in the distribution of the stage of diagnosis for patients.

Dr Helen Pardoe, Chief Clinical Information Officer at The Princess Alexandra Hospitals NHS Trust in London, discussed the experience and lessons learnt in the UK. During the first wave, all elective surgeries were stopped, which resulted in 66.000 patients waiting more than a year for surgery as of January 2021.

From the experience of the first wave, different research projects have identified that the risk of acquiring COVID at the hospital was low and if planned properly, elective surgeries can be safely performed during the pandemic. The plan used in the hospital is referred to as a 'pre-operative COVID secure bundle'. This bundle of care involves hospital wide changes, such as the use of PPEs, not accepting visitors, respecting social distancing rules, or cohorting patients using 'red and green areas'. It also involves a clear separation in the decision-making process to provide or postpone day surgeries and surgeries that require inpatient admission. Private sector hospitals, which do not have accidents in emergency, admit zero COVID patients and have strict swabbing, assessment, and PPE protocols, have been used as green areas to perform surgeries and reduce delays.

During the second wave, the number of COVID hospitalisation, the transmission rates, the number of staff infections and the number of hospital-acquired COVID infections have significantly increased with the new SARS-CoV-2 variant. This unexpected impact has forced hospitals to stop all surgeries for 6 weeks. The UK is hoping they will be able to use the lessons learnt from the first wave to perform day surgeries, especially for cancer patients, using a strict green pathway.

In the UK there is not currently a structured plan to recover from the backlog created by postponing elective surgeries. Surgical teams have been trying to increase their efficiency; they have also extended their working days to weekends; and many professionals did not take their annual leave in 2020. However, this is not a sustainable plan to recover from the backlog.

Dr Giuseppe Banfi, Director of Scientific Research at Hospital Galeazzi, a specialised hospital in orthopaedic in Milan, summarised the situation in Italy. During the first wave, the hospital, which is mainly organised for planned surgery, experienced a significant decrease in surgeries for both inpatient and outpatient services. In the latter, approximately 30.000 patients were missed in ambulatory care. In parallel, the urgent surgery cases doubled in the hospital because the regional health service sent all emergency trauma and fracture patients to specialised hospitals.

The hospital had to organise for COVID patients who needed emergency orthopaedic surgery, as well as for non-orthopaedic COVID patients who were directed to them due to a lack of space in the general hospitals. In September, when they resumed planned surgeries, to decrease the risk of hospital acquired COVID infections, they decreased the length of post-surgery stays and started using a special recovery pathway supported by digital rehabilitation at home.

The lessons learnt were published in papers and discussed during webinar to support other countries. The hospital reported the experience of its workforce, but also the patients' experience regarding elective surgeries (hospital admission, surgery itself and discharge) using Patient Reported Outcome Measures (PROMs). Comparison of PROMs before and during COVID, shows that patients thought that the quality of the surgeries were maintained, but experienced delays in the physical recovery process, due to the decreased support from physical therapists and physicians.

In Italy, the recovery of missed patients during the pandemic should be a priority, as delays in surgeries and elective services will increase the severity of the diseases, thus have a broader impact on the health system and the country's economy. Italy should put an emphasis on the recovery plan for one-day and ambulatory surgeries, as they were stopped for almost a full year.

In addition to the individual country experiences, some of the actions identified going forward are the following:

- Beyond the pandemic, health systems need a new way of thinking. For example, instead of solely focusing on reducing the backlog, health systems should also focus on prevention to avoid new or aggravated cases.
- Primary care services will have to take on additional work to support patients, since emergency care cannot provide the services they need.
- Patient pathways for a lot of diseases are difficult, even for chronic diseases and should be revisited.
- The use of digital medicine should be increasingly used parallelly to in-person visits.
- Health managers should change the payment methods of different health services, for example focusing on bundle payments, to allow more flexibility and control to hospitals.
- Governments will need to invest more in healthcare and work on managing the expectation of their citizens using scientific data.
- Infection control in the use of green areas and the implementation of strict health and safety procedures should be a priority.
- Each front-line clinical worker should have an FP3 masks every shift and start preparing for the impact of the new variant.
- Front line health workers should also be vaccinated as priority groups along with the other vulnerable groups.

The webinar was hosted by EHMA in partnership with JnJ. You can watch the recording here. All materials and resources mentioned in the webinar can be found here.