

EDITORIAL

COVID-19, a remarkable year

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The past year will forever be remembered as the year of the outbreak of a novel coronavirus. From the moment the first Dutch patient was admitted to hospital, healthcare providers received a crash course in recognising and treating these patients. Intensivists, ICU nurses and all others working with the most critically ill of these patients have since gained enormous insight into this novel virus, its treatment, dangers and pitfalls. We were confronted with a serious new medical condition at a scale not seen before; during the so-called 'first-wave', the number of ICU beds in the Netherlands was almost doubled. Dutch ICUs managed this high influx of patients by working and cooperating with each other, and with the help of numerous other departments and specialities.

To commemorate this past year, the editorial board of the Netherlands Journal of Critical Care (NJCC) has chosen to publish a special edition of the Journal, and asked the Dutch ICU community for their input. This resulted in a variety of articles, covering all aspects of the past year. The national ICU evaluation foundation (Nationale Intensive Care Evaluatie (NICE)) has presented all the data collected during the past year and up to the deadline of this edition of the NJCC; their article forms a comprehensive overview of one year COVID-19 in data.^[1]

Several colleagues, from all corners of the country, have submitted interesting papers on this subject. Hoogveen et al. report on a retrospective study conducted in a large ICU cohort, investigating the use of high-dose methylprednisolone in COVID-19 patients.^[2] Although it is only observational, it emphasises the positive effect of high-dose methylprednisolone and that this, as we now know, beneficial treatment was already administered in our ICUs during the 'first wave'.

As all those working in the ICU in the past year are very much aware, ventilation of the COVID-19 patient can be very challenging, especially concerning the transition from a

controlled mode of ventilation to an assisted mode. Bakker et al. propose the oxygenation index in order to estimate when the patient is ready for this transition and to prevent self-inflicted lung injury (SILI).^[3] Osinski et al. report on a case in which the respiratory drive is based primarily on arterial oxygen, postulating that this, in some cases, may be a better way of regulating the respiratory drive.^[4] Although both proposed methods are interesting and possibly useful, the prevention of SILI remains very difficult in COVID-19 patients and poses a major challenge for the future.

Van Boven et al. share a very common but potentially fatal complication.^[5] Although not uncommon during non-COVID-19 times, with the increased workload and the number of patients in prone position this can be a serious problem in the ICU, and warrants vigilance of all those working with ventilated ICU patients. To avoid the above-mentioned problems (SILI, tube obstructions et cetera) extracorporeal membrane oxygenation (ECMO) seems a 'simple' solution. Van der Heijden et al. present two cases showing that, with very strict indications, ECMO treatment can be lifesaving, but unfortunately not always.^[6] Krijnen et al. and Maatman et al. both describe the neurological effects and complications of a COVID-19 infection in ICU patients, both focussing on vascular problems.^[7,8]

Although the clinical efforts of the Dutch ICUs have been in a very bright spotlight this past year, the scientific efforts are no less impressive. Both Elbers et al. (Dutch ICU Data Warehouse) and Haitsma Mulier (REMAP-CAP) report on their unique studies.^[9,10] The results of these studies will follow soon, but both show that robust scientific evidence can only be gained by cooperation. Information on participation in these studies can be found via the links provided in the articles.

Hopefully, the measures imposed on society and the beneficial effect of the vaccination campaign will soon slow down the

pandemic so that we all, including the NJCC, can return to a relatively normal situation. Until then, we hope you enjoy this overview of all the aspects of Dutch ICU work during this remarkable year and we would like to thank all authors and reviewers who, despite the ongoing COVID-19 infections, found time for the NJCC.

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