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patients undergoing noncardiac surgery and has been identified as an independent risk factor for postoperative adverse outcomes,[6] we argue that a lower incidence of primary postoperative complications in the goal-directed therapy group would be attributable to the decreased occurrence of KDIGO stage 1 AKI.

Finally, AKI defined by urinary NGAL at least 150 ng ml^{-1} at either 24 or 72 h after surgery was regarded as the primary outcome. It must be noted that NGAL is an early detected biomarker of AKI; that is, NGAL elevation is detectable as early as 3 h after AKI development and peaks about 6 to 12 h after injury, depending on the severity of AKI.[7] There is no standardised time frame for NGAL measurement but first measurement of urinary NGAL at 24 h after surgery in this study would have missed the effect of goal-directed therapy on early postoperative dynamic changes of NGA. Furthermore, the urinary NGAL levels measured at three time points had great individual differences and even standard deviations were up to 2 to 5 times the means. As sample size estimation was not performed, this study may not be powered to determine between-group differences in NGAL and NGAL : creatinine ratios. Additionally, there are no specific cutoff values of NGAL for definition of AKI. As a general rule, a level greater han 150 ng ml^{-1} can identify the patients at a high risk of AKI, and a level greater than 350 ng ml^{-1}can indicate the patients at high risk for renal replacement therapy.

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Video laryngoscopy during airway management in COVID-19 patients: practical relevance of a recent EJA Christmas issue article

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Editor,

Against the background of the very recent developments regarding the rapid spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) with increasing infection and death rates worldwide, it is imperative for any anaesthetist and intensivist to be well prepared, as we are the specialists primarily involved in providing respiratory support for critically ill patients. Although the World Health Organisation (WHO) has declared coronavirus disease 2019 (COVID-19) a pandemic, and thus appropriate countermeasures can hopefully be taken with greater success, a further marked increase in the number of infected patients must be expected. Most cases show a clinically unremarkable or at least mild course; however, there is a relatively high number of patients requiring respiratory support including invasive ventilation. Regarding airway management, it is of utmost importance to protect oneself as well as other healthcare professionals against the further transmission of the virus, in addition to the most qualified patient care. As a result of direct patient contact, healthcare personnel are of course at great risk of being infected with SARS-CoV-2, and the further spread of the virus within this group constitutes an immediate threat to the community as a whole due to an impending collapse of the healthcare systems.[1] Therefore, every effort has to be made to prevent this from happening.

Obviously, during airway management for invasive respiratory support, the person performing the endotracheal intubation is exposed to the highest risk of infection due to their immediate proximity to the patient's upper airway.[2] Therefore, it is recommended, in addition to the consequent use of the personal protective equipment, to reduce all procedures that are associated with the intense formation of aerosols, to prevent further airborne spread of the virus as best as possible.[3] These include both noninvasive respiratory support (noninvasive ventilation, continuous/biphasic positive airway pressure via face mask) as well as manual bag-mask ventilation as part of the endotracheal intubation procedure. As a consequence, the latter should be performed as rapid sequence induction.[4] A randomised controlled trial, which was published in last year's Christmas issue of the *European*

Journal of Anaesthesiology, may indeed provide practical support in answering the question of how to further reduce the risk of transmission of the infection. A Chinese research group, Chen *et al.*,[5] reported that the use of video laryngoscopy significantly reduced the burden on the intubating anaesthetist caused by the patient's halitosis to a high degree. The main reason for this was a significant increase in the distance between the face of the intubating person and the mouth of the patient when using video laryngoscopy, compared with conventional laryngoscopy with a Macintosh blade. Other authors have already previously reported similar results using a mannequin scenario.[6]

The association of the contamination of exposed personnel with airborne pathogens with the spatial distance is a well known phenomenon.[2] Developing further the idea based on the findings of Chen *et al.*,[5] the use of a video laryngoscope with an external screen during endotracheal intubation (instead of a device with a screen mounted on the handle) will certainly increase this spatial distance even further and thus enhance the protective effect on the exposed personnel.[6] Even if the editors of the *European Journal of Anaesthesiology* considered the study by Chen *et al.*,[5] as a humorous and light-hearted (although methodologically sound and valid) contribution to the scientific discourse, in light of very recent developments, it provides an exceptionally relevant as well as evidence-based approach to further reduce the spread of SARS-CoV-2 especially among highly exposed healthcare personnel. In view of this aspect, the use of a video laryngoscope, preferably with an external monitor, during intubation should be urgently included in the general recommendations for airway management in the care of patients with COVID-19.

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Reply to: video laryngoscopy during airway management in COVID-19 patients

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Editor,

We thank Hilbert[1] for his interest in our previous work[2] and appreciate the opportunity to respond.

We absolutely agree that using a video laryngoscope, preferably with an external monitor, during intubation should be urgently included in the general recommendations for airway management in the care of patients with COVID-19. As we mentioned in our article in the last year's Christmas issue of the *European Journal of Anaesthesiology*, the use of video laryngoscope increases the distance between the face of the intubating person and the mouth of the patient, which is likely to reduce the risk of cross-infection of respiratory infectious diseases between patient and healthcare personnel. In our study, we also cultivated the patients' exhaled gas colonies during intubation. However, these data were not reported in our article[2] as we did not cultivate exhaled gas colonies before induction. Still, it is reasonable to conclude that the risk of cross-infection decreases with the increase of this spatial distance, which is also the reason why Dr Hilbert proposed separating the screen from the laryngoscope handle and using an external screen.

Compared with the GlideScope, the handle of which is separated from the screen, our colleagues are more willing to use a video laryngoscope with a screen mounted on the handle, because it is lighter and more convenient in daily clinical practice. However, if we can make the split-screen video laryngoscope lighter and more convenient, our colleagues' habits are likely to change radically.

Although many countermeasures have been taken, the global spread of COVID-19 is strikingly fast[3] and its contagion power is stronger than SARS-CoV and MERS-CoV.[4] We agree that in addition to the consequent use of the personal protective equipment, we should reduce all procedures that are associated with the intense formation of aerosols to prevent further airborne spread of the virus as best as possible. All the intubation operators have been encouraged to use video laryngoscopy rather than direct laryngoscopy for intubation amid the COVID-19 outbreak in China.[5] In addition, we also developed a new way to reduce the risk of cross-infection between anaesthesiologists and patients by using a uniquely designed protective sleeve (Fig. 1).[6] This enable us to avoid