LETTER TO THE EDITOR

Caring for Critically Ill Immunocompromised Patients
Multinational Network The Nine-i Network
The Bekele Afessa Research Day

P. Hemelaar¹, Elie Azoulay², Peter Pickkers¹
¹Department of Intensive Care Medicine, Radboudumc, Nijmegen, the Netherlands
²Medical Intensive Care Unit, Saint-Louis hospital, Paris, France

Correspondence
P. Hemelaar · pleun.hemelaar@radboudumc.nl

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On 22 March 2016, the second annual Nine-i meeting was held at Saint-Louis Hospital, Paris. The meeting devoted special attention to Dr Bekele Afessa and his contribution to the field of critically ill haematology patients. Surrounded by the impressive wax sculptures in Musée des Moulages, 18 speakers from nine different countries presented their research in ICUs worldwide. The meeting, organised by Professor Elie Azoulay, granted plenty of opportunity for interesting discussions throughout the day. In this letter we would like to inform Dutch ICU physicians that it is still possible to participate in a large observational study.

One of the current ongoing projects is the Efraim study, a multicentre multinational observational study on outcomes associated with acute respiratory failure in non-HIV immunocompromised patients. During the last decade, the reluctance to admit patients with haematological malignancies to the ICU for monitoring or treatment has decreased. Respiratory failure represents the main indication for ICU admission in these patients. Mortality rates have decreased over time, and while mortality of haematological patients is still twice as high as in other medical ICU patients, it is comparable with patients who suffer from cirrhosis or severe heart failure, for example.[1]

The Efraim study aims to monitor all immunocompromised patients with acute respiratory failure throughout the first seven days after ICU admission. To perform a statistical analysis with enough power to identify targets for improvements, data of 500 patients who eventually died need to be collected. Therefore, a total of 2500 patients need to be recruited worldwide.

The Efraim study includes patients who are adults (>18 years), suffer from immunosuppression (immunosuppressive drugs/long-term (>3 months) or high-dose (steroids >0.5 mg/kg/day), solid organ transplant, solid tumour, haematological malignancies, or bone marrow/stem cell transplantation) and are admitted to the ICU because of/with acute respiratory failure. Patients are excluded from the study when they are HIV positive, are admitted to the ICU after cardiac arrest or admitted only to secure bronchoscopy, develop acute respiratory failure in the first six days after elective surgery or in the first seven days after organ transplantation, as well as patients who are chronically ill, such as end-stage renal disease and dialysis, diabetes or cirrhosis.

The collection of data is exclusively observational and consists of filling out a four page case report form. The Ethics Committee of VU Medical Center Amsterdam approved the study. Data needs to be extracted from the medical records and no informed consent is needed in the Netherlands. Therefore, it is possible to look back until November 2015 (the formal start of the study) and ‘retrospectively’ collect data on patients who fulfil the criteria. The collected data will capture patient characteristics of the particular patient group, which treatments they received and which treatment limitations were agreed upon. Furthermore, the study will provide insight into the clinical course and outcome of these patients. All-cause mortality at 28 days after ICU admission is defined as the primary endpoint of the Efraim study. Secondary endpoints include time between onset of respiratory symptoms and ICU admission, use of noninvasive diagnostic tests, acute respiratory failure aetiology, non-respiratory organ dysfunction, transition to mechanical ventilation and ARDS, risk factors for intubation and ARDS, risk factors for invasive fungal infection, impact of antifungal agents on outcomes, and impact of resistant bacteria on outcomes. With the data that will be obtained, questions related to ICU characteristics, actual outcomes, risk factors for intubation, risk factors for ARDS, ARDS and neutropenia, ventilation strategies, rescue strategies and specific acute respiratory failure aetiologies will be answered.

In order to answer questions regarding the endpoints, a significant number of patients need to be recruited throughout ICUs worldwide. Currently, over 50 ICUs in 16 countries are collaborating and over 1000 patients in total have been enrolled. In the Netherlands, eight centres are participating at this
moment. These numbers are very promising, but so far only generate half of the required data. That is why we would like to reach out to the ICUs in the Netherlands that have not yet joined the Efraim study and ask them to contact us if they are interested in collaboration. No financial compensation is available for participation; however, there are a number of benefits: if a site includes >25 patients, one principal investigator per site will be linked to the articles. When a site includes >50 patients, one principal investigator per site will appear as a listed co-author. If you are interested in contributing to this study, and you are able to enrol >25 patients who were admitted to your ICU between 1 November 2015 and 30 June 2016, please send an email to pleun.hemelaar@radboudumc.nl for additional information.

Disclosures
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References