Dear Audience,

It is with great pleasure that the editorial board presents in the third issue of the Journal for this year a glimpse of the potential for virtual reality (VR) environments in patient care. In the current issue, Lehman\(^1\) and colleagues discuss the current capabilities and limitations of virtual reality environments in assessing the safety of patients in a spectrum of “real-world” settings. The authors highlight poignant examples of VR in simulating complex tasks of personal and social activities of daily living such as shopping, behavior control, memory and attention. Whilst these examples give a glimpse of the current capacity of VR, there remain questions regarding the validity and sensitivity of methods to test these applications. As discussed by the authors, the major foreseeable challenge is the ability of VR devices to remain sensitive to the tasks performed, whilst having the external validity to test the device against a broad range of contexts and situations.

As healthcare, moves towards a community based approach for many problems, VR environments offer a variety of potential in certain specialties such as rehabilitation medicine. By recreating certain environments and situations, patients are able to carry out abstract exercises which would otherwise be difficult to learn and perform.

Another example of VR is its potential for use as a diagnostic tool. Medical imaging modalities capture 3D structures, and project them onto 2D viewing surfaces such as computer screens. However through the utilization of appropriate VR technology, it is possible to view these 3D structures keeping their original three dimensionality. An example of this is provided by Yu et al who have adapted a commercial VR device to view wide field ophthalmic retinal photographs, which is a novel way to view such images\(^2\).

VR has an immense potential in medical applications. As with all new technological modalities however, there needs to be a compelling evidence base to use these technologies, together with demonstration of potential economic benefits.

References