



children



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Application of Near-Infrared Spectroscopy in Pediatrics

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Near-infrared spectroscopy (NIRS) allows for non-invasive assessment of end-organ oxygenation, making this technique especially suitable for neonates and children. Multiple NIRS applications have been described with regard to various neonatal and pediatric populations with various illnesses, and assessing multiple organs. The assessment of cerebral oxygenation has been studied widely, though evidence for effective clinical use in the pediatric population is still scarce. Using NIRS for the assessment for cerebrovascular autoregulation is gaining interest. Similarly, functional cerebral NIRS may add valuable information on cerebral perfusion to other neuroimaging techniques in children. For somatic use, the measurement of renal, intestinal, lung or muscle tissue oxygen saturation may potentially allow for the prediction of diseases or the efficacy and complications of therapy, as often seen in small cohorts. For this series of papers, we plan to include original research and review papers on the application of both cerebral and somatic NIRS in the neonatal and pediatric populations.



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Special Issue