



## Clinical Applications of Novel Tools to Personalize the Follow-Up and Predict the Outcomes in Congenital Heart Disease

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### Message from the Guest Editors

In recent years, there has been growing interest in identifying tools that can be used by clinicians to help predict the outcome of patients with congenital heart disease (CHD). In fact, although a clinical assessment is fundamental to understand the patient's state of health, the use of artificial intelligence to standardize can save our clinicians time and decrease contour errors. In addition, nowadays, clinicians can go into detail in cardiac shape modeling using machine learning to visualize abnormal mechanisms underlying dysfunction in heart disease. Lately, clinicians have been using strain analysis either with echocardiography or with cardiac MRI to anticipate the worsening of cardiac performance before the common method of estimating ejection fraction to predict adverse events in CHD. Finally, at present, we are also considering the use of biomarker-based risk models to predict persistent multiple organ dysfunctions after congenital heart surgery.

Thus, the aim of this issue is to encourage researchers to present original works on how these new tools can be used in clinical practice to optimize the management of patients with CHD and reduce the incidence of adverse events.





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