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## 50 Years Ago in *THE JOURNAL OF PEDIATRICS*

### Diagnostic Utility of the Newborn Electrocardiogram

Hastreiter AR, Abella JB. The electrocardiogram in the newborn period. II. The infant with disease. *J Pediatr* 1971;78:346-54.

**H**astreiter and Abella described the use of the electrocardiogram (ECG) in healthy infants in January of 1971.<sup>1</sup> In the following issue, 50 years ago in *The Journal* they went on to comprehensively describe infant pathologies detected by ECG. In addition to the most common arrhythmias and electrolyte disturbances, the authors described sinus bradycardia in premature infants, as well as ECG changes in respiratory distress syndrome with hypoxia and acidosis. Further, they elaborated on the ECG findings of congenital heart diseases, including ventricular septal defect, cor triatriatum, aortic atresia, total anomalous pulmonary venous connection, double-outlet right ventricle, tricuspid atresia, Ebstein anomaly, truncus arteriosus communis, transposition of great vessels, and patent ductus arteriosus.

The decade after these 2 comprehensive papers by Hastreiter and Abella in *The Journal*, echocardiography and pulse oximetry technologies were introduced to neonatal medicine.<sup>2,3</sup> Pulse oximetry is now routinely used for continuously measuring infant oxygenation, to assess heart rate, and to some extent bradyarrhythmias and tachyarrhythmias.<sup>3</sup> Although pulse oximetry is commonly available in neonatal intensive care units, the access to a trained echocardiographer might be limited, especially during night, weekend, and holiday shifts. With emerging technology the past 5 decades, clinicians may have forgotten the vast information systematized by Hastreiter and Abella and others regarding the ECG, which can be used not only for assessing cardiac rhythm, but also to diagnose congenital heart disease and other pathologies including electrolyte disturbances and pulmonary disease with hypoxia in newborn infants. The knowledge presented by Hastreiter and Abella might still be a useful adjunct to diagnose infants with cyanosis and suspected congenital heart disease, especially when echocardiography is not readily available.

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