

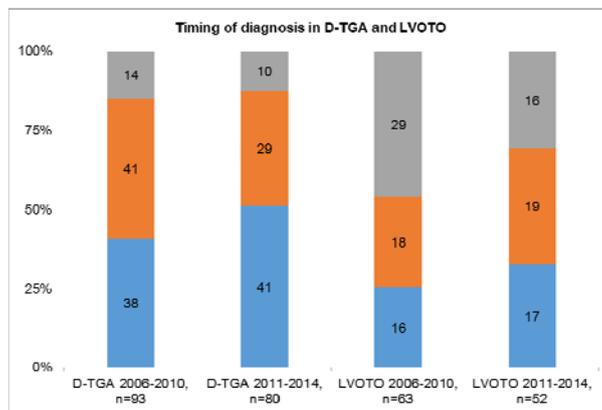
**Timing of diagnosis in readily treatable congenital heart diseases does not affect mortality**

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Introduction: Timing of diagnosis in readily treatable congenital heart diseases does not affect mortality

Methods: From a retrospective, population-based review of all major congenital heart disease (CHD) cases in New Zealand from 2006 to 2015 the outcome of two groups of readily treatable CHD (D-transposition of the great arteries (D-TGA) and critical left ventricular outflow tract obstruction including coarctation and interrupted aortic arch with two ventricles (LVOTO) were examined. Outcome was analysed based on the timing of diagnosis and survival to 6 months of age over two timeframes: 2006-2010 and 2011-2014.

Results: There was a slight increase in the prenatal diagnosis of D-TGA over the study period and a decrease in the number with LVOTO diagnosed after hospital discharge (Figure 1)



Before birth ■  
 Before discharge ■  
 After discharge ■

The rate decreased substantially between 2006-10 and 2011-14 (D-TGA 9.7% to 1.3% (p= 0.021) and LVOTO 20.7% to 2.2% (p=0.005)). (Figure 2)).

In both D-TGA and LVOTO mortality occurred prior to cardiac surgery in almost all cases. Within the time frame for outcome, in 2006-2010, there was one post-operative death within 6 months of surgery in the D-TGA group and two in the LVOTO group. In 2010-2014, there were no deaths in the D-TGA group and one in the LVOTO group. All of these had significant non-cardiac comorbid issues contributing to death.

Conclusions: There has been a dramatic reduction in mortality for D-TGA and LVOTO. This has been accompanied by a modest increase in the antenatal detection of D-TGA and a reduction in the number with LVOTO identified after hospital discharge. In D-TGA, lower mortality is likely related to an emphasis on delivery at a cardiac centre and rapid identification, stabilisation and transfer of those born elsewhere, while in LVOTO it is most probably the result of a reduction in the number of cases diagnosed after hospital discharge.