

## Prognostic calculations for grown-up congenital heart disease patients in Latvia

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**Background.** The remarkable improvement in survival of patients with congenital heart disease (CHD) has led to a continuously growing number of grown-up congenital heart disease (GUCH) patients, in particular those with more complex disease. Importantly, a significant reduction in mortality is associated with referral to a GUCH center with professional care and is most pronounced in patients with severe forms of CHD. There is growing number of patients with complex CHD in children population in Latvia what will increase the GUCH population in near future. Data on GUCH population in Latvia are still lacking. It is very important to realize the amount of expected GUCH population to adequately plan and organize medical care for those patients.

**Aim.** We aim to calculate approximate number of GUCH population in Latvia in 8 years according to Latvian Children Congenital Heart Disease Registry.

**Methods.** This is single-center retrospective data analysis of Children Congenital Heart Disease Registry from Children's Clinical University Hospital in Riga, Latvia. Patients with CHD were included in registry from January 2006 until December 2016 consecutively. Parents of all patients did consent for inclusion in registry. Data about date of birth, gender and diagnosis were collected. Patients with moderate to severe CHD complexity according to ACC/AHA 2008 guidelines were defined as complex CHD and analyzed for 10 years after inclusion of first patient. Prognostic estimates of age and disease complexity for 2, 5 and 10 year prognosis were calculated starting from December 2016. Statistical analysis was performed with IBM SPSS Statistics 23.

**Results.** From January 2006 until December 2016 2726 children were included in the Registry with mean age by inclusion 3 years (Median 134 days, Mode 0 days) and 50,4 % were male patients. By December 2016 there were 389 (14,3 %) adult patients from whom 49 (12,6 %) patients had complex CHD. In 5 years there will be around 726 GUCH patients with 98 (13,4%) of them with complex CHD. In 10 years there will be around 1589 GUCH patients with 249 (15,6 %) of them with complex CHD.

**Conclusion.** After 5 and 8 years there will be considerable number of complex GUCH patients with need for organized and professional medical care in specialized GUCH center.

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