



[\[Comparison of QT-Interval Measurement Techniques and Their Clinical Value\].](#)

<https://arctichealth.org/en/permalink/ahliterature272430>

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Humans
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Abstract: Long QT-interval is one of most important predictors of risk of development of life threatening arrhythmias and sudden death. Correct measurement of QT-interval is essential for diagnosis of its prolongation. At present the Bazett formula for calculation of corrected QT ($QT(c) = QT / \text{radical}(RR)$) is a standard method of QT estimation. However historically in Russia calculation of predicted QT ($QT(k) = k \text{ radical}(RR)$) $QT(k)$ has become an accepted technique. Furthermore many authors in this country apply criteria created for $QT(c)$ for interpretation of $QT(k)$ values. This results in hyperdiagnosis of QT prolongation in unaffected persons, erroneous conclusions on harmless nature of this condition, and underestimation of risk in patients with real long QT syndrome. Thus it is vital to proclaim calculation of $QT(c)$ an obligatory standard and to use existing international criteria for its interpretation.

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[\[Sudden out of hospital cardiac death in children, adolescents, and subjects younger than 45 years\].](#)

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Adult
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Incidence
Infant
Male
Middle Aged
Moscow - epidemiology
Myocardial Ischemia - mortality
Outpatients
Retrospective Studies
Young Adult

Abstract: Aim of this study was determination of incidence and structure of sudden out of hospital cardiac death (SCD) in subjects aged 1-45 years in Moscow. We analyzed rate and structure of SD among persons who had succumbed in 2005-2007 in several districts of Moscow with population of 2,502,836. Of the total number of 19,557 autopsies 7702 (39.4% or 92/100 000/year) and 1265 (6.5%, 19.4% of autopsies in this age group, or 16.8/100000/year) in all age groups and in the age 1-45 years, respectively, were performed because of SCD. In most cases (44%) age at SCD was 41-45 years, only in 1% of cases it was less than 18 years. Eighty two percent of autopsied SD victims were men. Most frequent postmortem diagnosis was "cardiomyopathy" (69% overall, 80-96% in the age 19-35 years) established on the basis of detection of both specific and nonspecific changes in the myocardium. In 25% of SD cases in the age group before 18 years congenital heart disease was found. After 35 years rose portion of diseases of ischemic nature (22-32%). Percentages of hypertensive disease and other diseases among all diagnoses were 7 and 1, respectively. Beginning with 19 years in large percentage of cases presence of alcohol in blood was detected. This percentage was especially high in the age group 19-25 years (66.6%). SCD of most persons aged 20-45 years was registered at home, while in 50% of younger persons it occurred outside home often during physical effort. Rate of SCD, its circumstances and structure elicited in this study might serve as basis for elaboration of the system of early detection of groups of risk and prevention of SD in young age.

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