



# Naprasni srčani zastoj i naprasne smrti u urgentnoj medicini

## Sudden Cardiac Arrest and Sudden Death in Emergency Medicine

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### Apstrakt

**Uvod:** Naprasni srčani zastoj i naprasna srčana smrt često se koriste kao sinonimi, a ustvari predstavljaju različite entitete. Naprasni srčani zastoj je iznenadni prekid srčane aktivnosti koji je nereaktivan na spoljašnje nadražaje, pri čemu prestaje normalna disajna funkcija i izostaju znaci cirkulacije, a naprasna srčana smrt je prirodna i neočekivana, nastaje unutar jednog sata i počinje naglim gubitkom svesti. Oko 350.000 ljudi u Evropi umre od naprasne srčane smrti, a u SAD od 300.000 do 400.000 ljudi. To su, uglavnom, bili ljudi koji su bili savršenog zdravlja.

Urgentna medicina je grana medicine koja se fokusira na tretman akutnog oboljenja koje zahteva trenutnu medicinsku pažnju. Zbog toga je veoma bitno da se medicinske sestre i tehničari koji se bave urgentnom medicinom kontinuirano edukuju, jer pravilnom primenom protokola u mnogim urgentnim stanjima opasnost će biti svedena na minimum, postići će se izlečenje bez teških komplikacija i izbeći će se letalan ishod.

**Etiologija** naprasne srčane smrti je, uglavnom, ishemijska bolest srca. Najčešće se otkrije tek na obdukciji kada se otkriju vrlo retke bolesti kao uzročnici. Faktori rizika su nespecifični i specifični. Dijagnostika i skrining se rade na osnovu EKG-a, gde se vidi 95% abnormalnosti. Pored EKG-a, koristi se ehokardiografija, magnetna rezonanca, kateterizacija srca i pomoćne elektrofiziološke studije. Preživljavanje od naprasne smrti je prosečno 7,6%, pri čemu je kvalitet života dobar u narednih 12 meseci.

Medicinske sestre i tehničari u urgentnoj medicini imaju jasnu i veoma važnu ulogu, pa je to još jedan od razloga da se kontinuiranom edukacijom povećava sigurnost u radu. U Velikoj Britaniji medicinska sestra i tehničar su vođe tima u zbrinjavanju urgentnih stanja. Medicinska sestra i tehničar treba da budu svesni situacije, da prate ostale članove tima, da koordiniraju rad i izdaju jasna, kratka uputstva, donose odluke i sa članovima tima komuniciraju, jer se u urgentnoj medicini stvari ne podrazumevaju. Pored tehničkih veština, veoma je važno raditi i na netehničkim veštinama, gde komunikacija zauzima značajno mesto. Razvoj urgentne medicine je u direktnoj vezi sa tehnološkim napredovanjem društva, pa kontinuirana edukacija u urgentnoj medicini podrazumeva, pored savladavanja teorijskog znanja, i vladanje mnogim manuelnim veštinama, kao što je rukovanje opreme koja se koristi.

**Zaključak:** Pošto je naprasna smrt vodeći uzrok smrti, potrebna je optimizacija srčane funkcije. Kardiopulmonalnu reanimaciju treba sprovesti kako bismo sprečili nepovoljan ishod, a to podrazumeva kvalitetne manuelne kompresije ili mehaničke kompresije grudnog koša. Ključno je lečenje pacijenata koji su pod rizikom od naprasne smrti. Lanac

### Abstract

**Introduction:** Sudden cardiac arrest and sudden cardiac death are often used as synonyms, but they are different entities. Sudden cardiac arrest is a sudden cessation of cardiac activity that is unresponsive to external stimuli, in which normal respiratory function ceases and signs of circulation are absent, sudden cardiac death is natural and unexpected, occurs within one hour, and begins with a sudden loss of consciousness. About 350,000 people in Europe die of sudden cardiac death, and in the USA from 300,000 to 400,000 people. These were, for the most part, people who were in perfect health.

Emergency medicine is a branch of medicine that focuses on the treatment of an acute illness that requires immediate medical attention. That is why nurses and technicians who deal with emergency medicine must be continuously educated, because with the correct application of the protocol in many emergencies, the danger will be reduced to a minimum, a cure will be achieved without serious complications and a fatal outcome will be avoided.

**The etiology** of sudden cardiac death is mainly ischemic heart disease. It is most often discovered only at autopsy when very rare diseases are discovered as the causative agents. Risk factors are non-specific and specific. Diagnostics and screening are done based on the ECG, where 95% of abnormalities are seen. In addition to EKG, echocardiography, magnetic resonance imaging, cardiac catheterization, and auxiliary electrophysiological studies are used. Survival from sudden death averages 7.6%, with good quality of life over the next 12 months.

Nurses and technicians in emergency medicine have a clear and very important role, so this is another reason to increase occupational safety through continuous education. In Great Britain, the nurse and the technician are the team leaders in emergency care. Nurses and technicians should be aware of the situation, monitor other team members, coordinate work and issue clear, short instructions, make decisions, and communicate with team members because things are not taken for granted in emergency medicine. In addition to technical skills, it is very important to work on non-technical skills, where communication plays an important role. The development of emergency medicine is directly related to the technological progress of society, so continuous education in emergency medicine implies, in addition to mastering theoretical knowledge, mastery of many manual skills, such as handling the equipment used.

**Conclusion:** Since sudden death is the leading cause of death, optimization of cardiac function is required. Cardiopulmonary resuscitation should be carried out to prevent an unfavorable outcome, and this implies high-quality manual compressions or mechanical compressions of the chest. The key is treating pa-



preživljavanja je snažan koliko je jaka i najslabija karika. Ljudski faktor je karika na kojoj se mora raditi, kontinuirano se edukovati, kako u tehničkim, tako i u netehničkim veštinama. Neophodno je raditi na planu i sprovođenju edukacije, a sve u cilju podizanja kvaliteta usuga koje pružamo.

tients who are at risk of sudden death. The chain of survival is only as strong as the weakest link. The human factor is a link that must be worked on, and continuously educated, both in technical and non-technical skills. It is necessary to work on the plan and implementation of education, all to raise the quality of the services we provide