

# Rezultati primjene Protokola za zbrinjavanje akutnog koronarnog sindroma u zapadnoj Slavoniji

## Utilization and results of the Acute Coronary Syndrome Treatment Protocol in Western Slavonia

Irzal Hadžibegović\*,  
Đeiti Prvulović,  
Krešimir Gabaldo,  
Marijana Knežević  
Praveček,  
Katica Cvitkušić  
Lukenda,  
Ivica Dunder,  
Martina Menegoni,  
Domagoj Mišković,  
Božo Vujeva

Opća bolnica "Dr. Josip  
Benčević", Slavonski Brod,  
Hrvatska

General Hospital "Dr. Josip  
Benčević", Slavonski Brod,  
Croatia

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\***ADDRESS FOR CORRESPONDENCE:** Irzal Hadžibegović, Opća bolnica "Dr. Josip Benčević", Andrije Štampara 42, HR-35000 Slavonski Brod, Croatia. / Phone: +385-91-5333-091 / E-mail: [irzalh@gmail.com](mailto:irzalh@gmail.com)

**ORCID:** Irzal Hadžibegović, <http://orcid.org/0000-0002-3768-9134> · Đeiti Prvulović, <http://orcid.org/0000-0002-8041-1197>  
Krešimir Gabaldo, <http://orcid.org/0000-0002-0116-5929> · Marijana Knežević Praveček, <http://orcid.org/0000-0002-8727-7357>  
Katica Cvitkušić-Lukenda, <http://orcid.org/0000-0001-6188-0708> · Ivica Dunder, <http://orcid.org/0000-0002-3340-7590>  
Martina Menegoni, <http://orcid.org/0000-0002-4295-9039> · Domagoj Mišković, <http://orcid.org/0000-0003-4600-0498>  
Božo Vujeva, <http://orcid.org/0000-0003-0490-3832>

**Uvod:** Nacionalne mreže liječenja akutnog infarkta miokarda sa ST elevacijom (STEMI) ključni su segment standardizacije kvalitete zdravstvene skrbi bolesnika s akutnim koronarnim sindromom (AKS), uz strogo definirane protokole, koji bi trebali biti prilagođeni svakoj regiji ovisno o organizacijskim mogućnostima.<sup>1</sup> Bolesnici s akutnim koronarnim sindromom bez ST elevacije (NSTEMI-AKS) za sada najčešće nisu liječeni u sklopu mreža te zahtijevaju dodatne napore u standardizaciji pristupa.

**Pacijenti i metode:** Analizirani su podatci o liječenju bolesnika s AKS perkutanom koronarnom intervencijom (PCI) u kateeterizacijskom laboratoriju u Slavonskom Brodu u razdoblju između 2014. i 2015. godine te uspoređeni s podatcima dobivenim od početka 2016. godine nakon usvajanja standardiziranog Protokola za cijelu regiju Zapadne Slavonije.<sup>2</sup>

**Rezultati:** U periodu nakon usvajanja protokola zabilježen je porast broja primarne PCI u STEMI za 36 % te porast udjela transportiranih bolesnika s primarnom PCI u STEMI, koji je do kraja rujna 2016. god. iznosio 48 %. Čak 36 % bolesnika sa STEMI dolazi do prvog medicinskog kontakta vlastitim prijevozom. Svi transportirani bolesnici prošli su kroz hitnu bolničku službu nadležne bolnice bez mogućnosti PCI. Do kraja rujna 2016. godine, 96 % bolesnika sa STEMI liječeno je s acetalicilatnom kiselinom, tikagrelorom i nefrakcioniranim heparinom prije koronarografije. Udio primarne PCI u kardiogenom šoku povećan je s 2,5 % na 7,8 %. Ukupna bolnička smrtnost nakon primarne PCI u STEMI porasla je nesigifikantno s 5,2 % na 6,9 % u 2016. god. Zabilježen je porast udjela PCI u NSTEMI-AKS za 14 %, od čega je 81 % bolesnika zbrinuto s PCI unutar 72 sata. Za 13 % porastao je udio PCI u transportiranih bolesnika s NSTEMI-AKS unutar 24 sata. Ukupna bolnička smrtnost nakon PCI u NSTEMI-AKS bila je vrlo niska i nije se značajno mijenjala.

**Zaključak:** Podatci prikupljeni uporabom protokola liječenja AKS pomažu u podizanju kvalitete liječenja i prepoznavanju problema koji zahtijevaju nova rješenja. Standardizirani protokoli liječenja svih bolesnika s AKS korak su do formiranja regionalnih i nacionalnih mreža za hitno zbrinjavanje cijelog spektra AKS koje jamče podizanje i održanje najviše kvalitete zdravstvene skrbi.

**Introduction:** National networks of treatment of acute myocardial infarction with ST elevation (STEMI) are a key segment in the standardization of the quality of care of patients with acute coronary syndrome (ACS), with strictly defined protocols, which should be tailored to each region depending on the organizational capabilities.<sup>1</sup> Patients with acute coronary syndromes without ST segment elevation (NSTEMI-AKS) are not usually treated as part of the network, and require additional efforts in treatment standardization.

**Patients and Methods:** We analyzed data on patients with percutaneous coronary intervention (PCI) performed in ACS in the catheterization laboratory in Slavonski Brod in the period between 2014 and 2015, and compared it with data obtained from the beginning of 2016 after the adoption of standardized Protocols for the entire region of Western Slavonia.<sup>2</sup>

**Results:** In the period after the adoption of the protocol, the number of primary PCIs in STEMI increased by 36%. Proportion of transported patients undergoing primary PCI in STEMI also increased, and amounted to 48% by September 2016. First medical contact in 36% of patients with STEMI occurred by means of patient's own transportation. All transported patients passed through the Emergency Department of hospitals without PCI capabilities. By the end of September 2016, 96% of patients with STEMI were pretreated with aspirin, ticagrelor and unfractionated heparin. The share of primary PCI in cardiogenic shock increased from 2.5% to 7.8%. Total in-hospital mortality after primary PCI in STEMI increased insignificantly from 5.2% to 6.9% in 2016. Number of PCI in NSTEMI-AKS increased by 14%. PCI in NSTEMI-AKS was organized within 72 hours in 81% of cases. Proportion of PCI in transported patients with NSTEMI-AKS within 24 hours increased by 13%. Total in-hospital mortality after PCI in NSTEMI-AKS was very low and did not change notably.

**Conclusion:** The data collected using the standardized ACS treatment protocol helped in maintaining the quality of treatment and identifying new problems which require new solutions. Standardized protocols for treatment of all patients with ACS should be a part of the strategy for formation of regional and national networks for emergency PCI implementation within the whole spectrum of ACS.

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