

## Razvoj programa praćenja kvalitete liječenja bolesnika s akutnim koronarnim sindromom u zapadnoj Slavoniji

### Developing a Treatment Quality Monitoring Program for Patients with Acute Coronary Syndrome in Western Slavonia

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**SAŽETAK:** Dobra organizacija mreže primarne perkutane koronarne intervencije (pPCI) ima najvažnije mjesto u pružanju optimalne zdravstvene skrbi bolesnika s akutnim koronarnim sindromom (AKS). Organizacija mreže pPCI dugotrajan je i logistički kompleksan posao. Prikupljanje, analiziranje i dijeljenje podataka o funkcioniranju mreže zbrinjavanja bolesnika s AKS-om ima za cilj poboljšanje funkcioniranja sustava. Monitoriranje svakodnevnog rada, prikupljanje, analiziranje i dijeljenje podataka ključni je element za kontinuirano poboljšanje rada. U ovome članku opisujemo napore u razvoju programa praćenja kvalitete liječenja bolesnika s AKS-om u zapadnoj Slavoniji, dijagnostičke, terapijske i destinacijske protokole te način i vrstu podataka koje ćemo monitorirati kao pokazatelje kvalitete i sveobuhvatnosti skrbi za bolesnike s AKS-om.

**SUMMARY:** A well-organized network for primary percutaneous coronary intervention (pPCI) is of paramount importance in providing optimal healthcare for patients with acute coronary syndrome (ACS). Organizing a pPCI network is a lengthy and logistically complex task. The purpose of gathering, analyzing, and sharing data on the functioning of the network is to improve the system. Monitoring everyday work and gathering, analyzing, and sharing data are the key elements of continuous improvement. This article describes the efforts to develop a quality monitoring program for the treatment of patients with ACS in western Slavonia – a region in Croatia. We also explain the diagnostic, treatment, and destination protocols used and the types of data we will monitor as indicators of quality and comprehensiveness of care for patients with ACS.

**KLJUČNE RIJEČI:** akutni infarkt miokarda, mreža primarne perkutane intervencije, reperfuzijska terapija, farmakoinvazivna strategija, primarna perkutana koronarna intervencija.

**KEYWORDS:** acute myocardial infarction, primary percutaneous intervention network, reperfusion therapy, pharmacoinvasive strategy, primary percutaneous coronary intervention.

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#### Uvod

Kada je dijagnoza akutnog infarkta miokarda s ST elevacijom (STEMI, prema engl. *ST segment elevation myocardial infarction*) postavljena ili se na nju opravdano sumnja, najvažniji način liječenja jest brzo otvaranje okludirane krvne žile. Primarna perkutana koronarna intervencija (pPCI, prema engl. *primary percutaneous coronary intervention*) preferirani je način revaskularizacije bolesnika sa STEMI<sup>1,2</sup>, a za bolesnike za koje se očekuje da se pPCI neće učiniti pravodobno preporučuje se farmakoinvazivna strategija<sup>3,4</sup>. Pravodobna reperfuzija zahtijeva pravodobnu dijagnozu, prijevoz i liječenje, a pravodobnost intervencije mjeri se u minutama, ne u satima ili da-

#### Introduction

When a diagnosis of ST segment elevation myocardial infarction (STEMI) has been established or is suspected, the most important treatment is quick reperfusion of the occluded blood vessel. Primary percutaneous coronary intervention (pPCI) is the preferred revascularization method for patients with STEMI<sup>1,2</sup>; a pharmacoinvasive strategy is recommended for patients where a timely pPCI is not feasible<sup>3,4</sup>. Timely reperfusion requires timely diagnosis, transport, and treatment, but the timeliness of the intervention is measured in minutes, not hours or days. A well-organized network of primary percutaneous coronary intervention is of para-

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nima. Dobra organizacija mreže pPCI ima najvažnije mjesto u pružanju optimalne zdravstvene skrbi bolesnika u akutnoj fazi infarkta miokarda. Smjernice za liječenje bolesnika sa STEMI<sup>1,2</sup> naglašavaju važnost organiziranja mreže pPCI između bolnica i sustava hitne medicinske pomoći koji bi trebalo uzimati u obzir specifičnosti regije, ali i uključiti trajnu kontrolu kvalitete sustava. I u Europi (*Stent for Life Initiative*)<sup>5</sup> i u Americi (*Mission: Lifeline*<sup>®</sup>; *The Door-to-Balloon Alliance*)<sup>6-8</sup> postoje profesionalne organizacije koje potiču implementiranje programa osmišljenih da poboljšaju organiziranje mreža pPCI radi skraćivanja kašnjenja u pružanju pravodobne pPCI.

## Razvoj mreže primarne perkutane koronarne intervencije na području zapadne Slavonije

Invazivni kardiološki laboratorij u Općoj bolnici u Slavonском Brodu otvoren je 2003. godine. Već pri osnivanju laboratorija postojala je želja za stvaranjem regionalnog centra koji će u budućnosti organizirati mrežu za zbrinjavanje bolesnika s akutnim koronarnim sindromom (AKS) koja će svakom bolesniku s akutnim infarktom miokarda (AIM) u zapadnoj Slavoniji omogućiti dostupnost pPCI-a. Zbog nedovoljnog broja invazivnih kardiologa, pPCI se počinje raditi od 2010. godine, i to samo tijekom radnoga vremena, a 1. siječnja 2014. dolazi do implementiranja laboratorija u Hrvatsku mrežu pPCI<sup>9</sup> s 24-satnom pripravnosću. U laboratoriju se godišnje učini oko 140 postupaka pPCI i približno isti broj intervencija za bolesnike s akutnim koronarnim sindromom bez ST elevacije (NSTEMI-ACS, prema engl. *non-ST elevation acute coronary syndromes*).<sup>10</sup> Cilj je boljom organizacijom mreže u regiji zapadne Slavonije ostvariti ciljeve koje je postavila i *Stent for life* inicijativa Europskoga kardiološkog društva<sup>5</sup>: učiniti više od 600 pPCI-a na milijun stanovnika ili postići da se više od 70 % bolesnika sa STEMI liječi pPCI-om. Također želimo povećati broj učinjenih pPCI-a na više od 180 godišnje te svim bolesnicima s NSTEMI-ACS omogućiti pravodobnu invazivnu dijagnostiku i po potrebi perkutanu koronarnu intervenciju (PCI, prema engl. *percutaneous coronary intervention*).

Organizacija mreže pPCI-a dugotrajan je i logistički kompleksan posao koji zahtijeva puni angažman interdisciplinarnog tima posvećenog ovom cilju. Takav tim čine liječnici te medicinske sestre i tehničari u timovima Hitne medicinske pomoći (HMP), u ujedinjenim hitnim bolničkim prijemovima (OHBP) u Požegi, Novoj Gradiški, Pakracu i Slavonском Brodu te na kardiološkim odjelima ovih bolnica, uz intervencijski tim laboratorija u OB Slavonски Brod. Spomenuti interdisciplinarni tim dijeli predanost eksplicitnom cilju poboljšanja liječenja bolesnika s AKS-om u regiji, uz međusobnu suradnju i uvažavanje, predanost i upornost u poboljšanju rada na ovom zadatku. Boljom ćemo organizacijom moći pratiti vlastiti rad, učinkovitost funkcioniranja sustava, analizirati podatke, napredak, uspjehe i neuspjehe te identificirati probleme i pronaći mogućnosti poboljšanja.

Za ostvarenje ovih ciljeva nužno je stvaranje jedinstvenoga standardiziranog dijagnostičkog, terapijskog i destinacijskog protokola za cijelu regiju i razvoj službenog programa praćenja kvalitete liječenja bolesnika s AKS-om.

mount importance in providing optimal healthcare for patients in the acute phase of myocardial infarction. Guidelines for treating patients with STEMI<sup>1,2</sup> stress the importance of organizing a pPCI network between hospitals and emergency medical services that takes into account the specifics of the region, but also includes continuous control of the quality of the system. Professional organizations exist both in Europe (*Stent for Life Initiative*)<sup>5</sup> and in the USA (*Mission: Lifeline*<sup>®</sup>; *The Door-to-Balloon Alliance*)<sup>6-8</sup> that work on the implementation of programs designed to improve pPCI networks with the goal of achieving timely pPCI interventions.

## Developing a network of primary percutaneous coronary intervention in western Slavonia

The invasive cardiologic laboratory in the Slavonски Brod General Hospital in Slavonia was opened in 2003. Even at its conception, we envisaged a regional center that would eventually organize a network for the treatment of patients with ACS, a network which would make pPCI treatment available to every patient with acute myocardial infarction (AMI) in western Slavonia. Due to insufficient numbers of invasive cardiologists on hire, pPCI treatment started being performed only in 2010 and even then only during working hours. On January 1, 2014, our laboratory with 24-hour readiness was introduced into the Croatian pPCI network<sup>9</sup>. Approximately 140 pPCI procedures are performed annually in the laboratory, as well as a comparable number of interventions with non-ST elevation acute coronary syndrome (NSTEMI-ACS).<sup>10</sup> The goal of improving organization is to achieve the aims set out by the *Stent for Life* initiative of the European Society of Cardiology<sup>5</sup>: performing more than 600 pPCI per million inhabitants or using pPCI to treat more than 70% patients with STEMI. We also want to increase the number of pPCI performed to over 180 annually and make timely invasive diagnostics and percutaneous coronary intervention (PCI) available to all patients with NSTEMI-ACS.

Organizing a pPCI network is a lengthy and logistically complex task demanding a dedicated interdisciplinary team. Such a team is comprised of physicians, nurses, and technicians in emergency medicine (EM) teams, merged emergency hospital admissions (MEHA) in Požega, Nova Gradiška, Pakrac, and Slavonски Brod, and the cardiologic departments of these hospitals along with the intervention team of the laboratory in the Slavonски Brod General Hospital. This interdisciplinary team is dedicated to the expressly stated goal of improving the treatment of patients with ACS in the region, through cooperation and mutual respect, dedication, and tenaciousness in the pursuit of this goal. Better organization will allow us to monitor our own work as well as the efficacy of the system, analyze data and both successes and failures, identify problems, and find avenues of improvement.

To attain these goals, it is necessary to develop a comprehensive and standardized diagnosis, treatment, and destination protocol for the whole region, while also developing an official program of quality monitoring for treatment of patients with ACS.

## Jedinstveni standardizirani dijagnostički, terapijski i destinacijski protokol

Najvažniji i osnovni zadatak jest jasno definirati timski pristup i napraviti jedinstveni standardizirani dijagnostički, terapijski i destinacijski protokol za cijelu regiju koji se bazira na suvremenim smjernicama i zahtjevima koje postavlja suvremena svjetska medicina<sup>1,2</sup>, a uzima u obzir i specifičnosti regije. Ovi zajednički protokoli trebaju jasno definirati „geografska područja odgovornosti” te implementirati i poticati sve mjere za koje je dokazano da skraćuju vremena kašnjenja u pružanju pravodobne reperfuzije.<sup>11,12</sup> Te mjere uključuju:

- postizanje cilja da što veći broj bolesnika ulazi u sustav aktiviranjem sustava HMP-a
- izvanbolnička trijaža bolesnika sa STEMI i transport u bolnicu gdje postoji mogućnost postupka PCI, zaobilazeći bolnice bez mogućnosti postupka PCI-a i izravan ulazak u Koronarnu jedinicu u OB u Slavanskom Brodu (izravni ulazak bolesnika u angiosalu)
- izvanbolničko snimanje 12-kanalnog elektrokardiograma (EKG) s brzom i točnom interpretacijom i postavljenjem dijagnoze STEMI nakon koje slijedi aktiviranje tima za PCI dok je bolesnik na putu u bolnicu
- za bolesnike koji ulaze u zdravstveni sustav preko OHBP-a u bolnicama bez mogućnosti liječenja postupkom PCI potrebno je postići da *door-in to door-out* vrijeme bude kraće od 30 minuta, a za OHBP bolnice u Slavanskom Brodu postići *door-to-balloon* time kraće od 60 minuta
- dolazak tima za PCI u intervencijski laboratorij unutar 20 minuta nakon poziva
- jedan telefonski poziv od prvog liječnika koji interpretira EKG dovoljan je za aktivaciju tima za PCI za prihvaćanje svih upućenih bolesnika (*no refusal policy*).

U kreiranju ovih protokola željeli smo pokriti sva mjesta ulaska bolesnika s AKS-om u sustav te kreirati protokole koji bi bili dijagnostičko-terapijske smjernice, koji bi bili jednostavni za popunjavanje, ali koji bi istodobno bili i izvor što je moguće više potrebnih podataka koji oslikavaju kvalitetu funkcioniranja sustava. Napravili smo protokole za liječnike u kolima HMP-a, OHBP-a, protokole za izbor reperfuzijske terapije za liječnike non-PCI bolnica te jedan zajednički statistički list koji prati bolesnika od njegova ulaska u sustav do izlaska iz bolnice.

U web izdanju časopisa, samo na hrvatskom jeziku, dostupni su protokoli:

**Prilog 1.** Protokol za objedinjeni hitni bolnički prijam.

<http://goo.gl/QdFGdw>

**Prilog 2.** Protokol za objedinjeni hitni bolnički prijam, prilozi.

<http://goo.gl/ZsZhbB>

**Prilog 3.** Obrazac za praćenje vremenskih okvira pravodobne reperfuzije. <http://goo.gl/w78Pr8>

**Prilog 4.** Akutni infarkt miokarda s ST elevacijom - izbor reperfuzijske terapije za bolnicu bez mogućnosti liječenja postupkom perkutane koronarne intervencije. <http://goo.gl/spkn0g>

**Prilog 5.** Protokol za bolesnike s akutnim koronarnim sindromom bez ST elevacije. <http://goo.gl/CxTYIH>

## A comprehensive and standardized diagnosis, treatment, and destination protocol

The most important and basic task is to clearly define a team-based approach and create a comprehensive and standardized diagnosis, treatment, and destination protocol for the whole region, based on current guidelines set by modern medicine<sup>1,2</sup> that also takes into account the specific characteristics of the region. These joint protocols must clearly define “geographical areas of responsibility” and implement and encourage all measures proven to reduce delays in providing timely reperfusion.<sup>11,12</sup> These measures include:

- Having as many patients as possible enter the system through EM services
- Triage of patients with STEMI outside the hospital and transportation to a hospital where a PCI procedure is available while avoiding hospitals where it is not, and direct admission to the Coronary Care Unit in the Slavonski Brod General Hospital.
- Prehospital 12-lead electrocardiogram (ECG) administration with quick and correct interpretation and establishment of a STEMI diagnosis, followed by the activation of the PCI team while the patient is in transit to the hospital.
- For patients entering the healthcare system through merged emergency hospital admissions in hospitals where PCI treatment is unavailable, the door-in to door-out interval should be brought down to less than 30 minutes, and the door-to-balloon time in MEHA of the Slavonski Brod General Hospital should be brought below 60 minutes.
- A PCI team must arrive in the intervention laboratory within 20 minutes of the call.
- One phone-call from the first physician interpreting the ECG should be sufficient to activate the PCI team to accept all referred patients (*no refusal policy*).

In creating these protocols, our goal was to cover all entry-points for patients with ACS into the system, and create protocols that would function as diagnostic and treatment guidelines that would be simple to fulfill, but would at the same time be a source of as much data on the functioning the system as possible. We formed protocols from physicians in EM and MEHA ambulances, protocols for choosing reperfusion treatments for physicians in non-PCI hospitals, and a general statistical sheet that follows the patient from their entry to the system to their discharge from the hospital. The protocols can be found in the Appendix (online, only in Croatian).

## The treatment quality monitoring program for patients with acute coronary syndrome

The goal of this program is to bring the treatment quality for these patients as close as possible to the ideal level of care they should receive. Such a program must be comprehensive and include not only patients that received an intervention, but also those that were diagnosed with ACS but were not treated with any form of reperfusion – the program should provide the total number of patients with ACS and the number

## Program praćenja kvalitete liječenja bolesnika s akutnim koronarnim sindromom

Cilj takvog programa jest smanjivanje razlika između pružene skrbi ovakvim bolesnicima i one koja bi idealno trebala biti pružena. Takav bi program trebao biti sveobuhvatan i uključiti ne samo one bolesnike kojima je učinjena intervencija nego i one koji su imali dijagnozu AKS-a, ali nisu liječeni nikakvim oblikom reperfuzije, dakle uvid u ukupni broj bolesnika s AKS-om i broj bolesnika kojima je reperfuzija bila indicirana, ali nije pružena (*eligible-untreated* bolesnici). U kreiranju tog programa željeli smo mjeriti i pratiti sve moguće segmente kašnjenja, tj. vremenske okvire pravodobne reperfuzije, i to na svakoj od razina pružanja skrbi, od ulaska u sustav do završnog angiograma te monitorirati i pokazatelje kvalitete i sveobuhvatnosti skrbi za bolesnike s AKS-om.

### PARAMETRI PRAVODOBNOSTI PRUŽANJA REPERFUZIJSKE TERAPIJE

Za HMP:

- vrijeme od početka simptoma do poziva
- vrijeme od poziva do dolaska na teren
- vrijeme provedeno na terenu
- vrijeme transporta.

Za OHBP:

- vrijeme od dolaska do snimanja EKG-a
- vrijeme od snimanja do intepretacije EKG-a
- vrijeme poziva tima za PCI
- vrijeme do početka transporta (za bolnice bez mogućnosti PCI-a).

Zbroj ovih vremena jest *door-in to door-out* (DIDO) za bolnice bez mogućnosti PCI-a

- vrijeme transporta za bolesnike iz bolnica bez mogućnosti PCI-a.

Bolnica u kojoj se provodi PCI:

- za OHBP isti parametri
- odvojeno pratiti transportirane i *walk-in* bolesnike
- postotak bolesnika koji ulaze izravno u salu i onih koji ulaze u koronarnu jedinicu
- tim za PCI: vrijeme ulaska u salu, vrijeme postavljanja uvodnice, vrijeme prolaska žicom kroz odgovornu leziju.

Za cijelu mrežu:

- ukupno vrijeme ishemijske (od početka simptoma do prolaska žicom odgovorne lezije, stratificirano ovisno o mjestu ulaska u sustav i transferu te vremena kašnjenja na svakom stupnju).

### POKAZATELJI KVALITETE I SVEOBUHVAATNOSTI SKRBI ZA BOLESNIKA S AKUTNIM KORONARNIM SINDROMOM

- način i mjesto ulaska bolesnika u sustav

of cases where reperfusion was indicated but not performed (eligible-untreated patients). In creating this program, we aimed to measure and monitor all aspects of belated treatment, i.e. the timeframes of timely reperfusion, at all levels of patients care from entry to the system to the final angiogram, as well as measure quality and comprehensiveness indicators in the treatment of patients with ACS.

### PARAMETERS FOR TIMELY ADMINISTRATION OF REPERFUSION TREATMENT

For EM services:

- Time elapsed from symptom onset to telephone call
- Time elapsed from call to arrival on scene
- Time spent on the scene
- Transport time

For MEHA:

- Time elapsed from arrival to ECG recording
- Time elapsed from recording to ECG interpretation
- Time needed to call the PCI team
- Time to transport commencement (for hospitals where PCI is unavailable)

Adding up the above time gives the door-in to door-out (DIDO) time for hospitals where PCI is unavailable

- Transport time for patients from hospitals where PCI is unavailable

Hospital performing PCI procedures:

- Same parameters as with MEHA
- Separate monitoring of transported and walk-in patients
- Monitoring the percentage of patients that go directly to the operation hall and those that go to the coronary care unit
- PCI team: time to arrival in the operating hall, time to lead insertion, time of wire passing through the relevant lesion

For the entire network:

- Total time of ischemia (from symptom onset to passing through the relevant lesion, stratified according to the site of entry into the system and transfer, as well as the time delay at each level).

### QUALITY AND COMPREHENSIVENESS INDICATORS IN THE TREATMENT OF PATIENTS WITH ACUTE CORONARY SYNDROME

- How and where the patient entered the system
- The percentage of patients that recorded a 12-lead ECG which was interpreted within 10 minutes from first medical contact (FMC)
- The percentage of cases in which the 12-lead ECG was adequately interpreted
- The percentage of patients in whom reperfusion (PCI or fibrinolysis) is indicated, and the percentage of cases where it was achieved



- postotak bolesnika kojima je snimljen 12-kanalni EKG i interpretiran 10 minuta od prvoga medicinskog kontakta (*first medical contact*, FMC)
  - postotak bolesnika kojima je 12-kanalni EKG adekvatno interpretiran
  - postotak bolesnika pogodnih za reperfuziju (PCI ili fibrinoliza) kojima je ona i ostvarena
  - postotak bolesnika kojima je reperfuzijska terapija pravodobno pružena:
    - a) pPCI: od FMC-a do prolaska žicom: unutar 90 minuta, a prihvatljivo do 120 min; za bolesnike s ranom prezentacijom (vrijeme od početka bolova do FMC-a manje od 120 min) poželjno je vrijeme manje od 60 min, a prihvatljivo do 90 min,
    - b) fibrinoliza: od FMC-a do početka fibrinolize – manje od 30 min,
    - c) farmakonvazivni pristup: koronarografija unutar 24 sata, a za rescue PCI neodgodiv transfer
  - uspješnost pPCI-a: postotak bolesnika s postignutim TIMI 3 protokom,
  - postotak bolesnika sa suspektnim AKS kojima je učinjena invazivna obrada i isključena je koronarna bolest srca
  - klinički ishodi:
    - a) hospitalna smrtnost, smrtnost nakon 1 mjeseca, smrtnost nakon 1 godine,
    - b) hospitalna krvarenja, cerebrovaskularni inzult
  - primjena terapije u HMP-u ili OHBP-u:
    - a) acetilsalicilatna kiselina,
    - b) dodatna antitrombotična terapija (klopidogrel, tikagrelor, prasugrel),
    - c) antikoagulacijska terapija (nefrakcionirani heparin, enoxaparin ili fondaparinux)
  - bolesnici s NSTEMI-ACS-om:
    - a) dokumentirana stratifikacija rizika od ishemijskih događanja i rizika od krvarenja,
    - b) dokumentirana vrsta i vrijeme liječenja,
    - c) za bolesnike izabrane za invazivnu strategiju, dokumentirati vrijeme kateterizacije
  - terapija pri otpustu:
    - a) statin u visokoj dozi,
    - b) beta-blokator,
    - c) acetilsalicilatna kiselina,
    - d) dodatna antitrombotična terapija (klopidogrel, tikagrelor, prasugrel),
    - e) upućivanje na rehabilitaciju, dijetetičaru, uključivanje u program odvikavanja od pušenja.
- The percentage of patients that received timely reperfusion treatment:
    - a) pPCI: from FMC to wire passing: within 90 minutes, 120 minutes being acceptable; for patients with early presentation (time from pain onset to FMC less than 120 minutes) the target time is 60 min, and 90 min is acceptable
    - b) Fibrinolysis: time from FMC to fibrinolysis – less than 30 min
    - c) Pharmacoinvasive approach: coronarography within 24 hours, undelayable transfer for rescue PCI
  - pPCI successfulness: the percentage of patients in whom a thrombolysis in myocardial infarction (TIMI) grade 3 flow was achieved
  - Percentage of patients with suspected ACS who received invasive processing, eliminating the diagnosis of coronary heart disease
  - Clinical outcomes:
    - a) Hospital mortality, mortality after 1 month, mortality after 1 year
    - b) In-hospital bleeding, stroke
  - Treatment by EM or MEHA:
    - a) With aspirin
    - b) Additional antithrombotic treatment (clopidogrel, ticagrelor, prasugrel)
    - c) Anticoagulation treatment (unfractionated heparin, enoxaparin, or fondaparinux)
  - Patients with NSTEMI-ACS:
    - a) Documented risk stratification for ischemic events and bleeding risk
    - b) Documented times and types of treatment
    - c) In patients chosen for invasive strategies: documented catheterization time
  - Therapy at discharge:
    - a) High-dose statin therapy
    - b) Beta-blockers
    - c) Aspirin
    - d) Additional antithrombotic treatment (clopidogrel, ticagrelor, prasugrel)
    - e) Referral to rehabilitation and a dietician, inclusion in a smoking cessation program

## Zaključak

Prikupljanje, analiziranje i dijeljenje podataka o funkcioniranju mreže zbrinjavanja bolesnika s AKS-om ima za cilj poboljšanje funkcioniranja sustava. Monitoriranje svakodnevnog rada nužno je da bismo imali uvid u to u kojem smjeru idemo

## Conclusion

The goal of gathering, analyzing, and sharing data on the treatment network for patients with ACS is to improve the system as a whole. Monitoring everyday work performance is necessary to provide insight on the direction we are going in and on what can be improved, whereas getting feedback is a key element in continuous improvement for all the members of the team that participate in patient treatment. Monitoring and analyzing all the above-mentioned data is a momentous task that can only be achieved with the full participation of all members of the team. We hope that our quality monitoring

i što možemo poboljšati, a povratna informacija svima u timu koji sudjeluju u liječenju bolesnika ključni je element za kontinuirano poboljšanje rada. Ovakav ambiciozan zadatak praćenja i analiziranja svih navedenih podataka teško je ostvariv bez punog angažmana svih članova tima. Nadamo se da će program praćenja kvalitete liječenja bolesnika s akutnim koronarnim sindromom zaživjeti u zapadnoj Slavoniji. U tom slučaju, možemo se nadati i uspostavljanju nacionalnog registra bolesnika s AKS-om te uključivanje u njegovu realizaciju svih zainteresiranih strana – stručnih društava, Ministarstva zdravlja i Hrvatskog zavoda za zdravstveno osiguranje.

program will be successful in west Slavonia, in which case we hope to set up a national registry of patients with ACS, which would include all interested parties – professional societies, the Ministry of Health, and the Croatian Health Insurance Fund.

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