

## Koronarna jedinica Opće bolnice Pula

## Coronary Care Unit at the Pula General Hospital

 **Marina Jelinić\***

Opća bolnica Pula, Pula,  
Hrvatska

Pula General Hospital, Pula,  
Croatia

**SAŽETAK:** U kratkom se članku opisuje povijest i daje osvrt na rad u Koronarnoj jedinici Opće bolnice Pula. Može se steći uvid u rad i mogućnosti zbrinjavanja i liječenja bolesnika. Gradi se nova bolnica koja će biti još bolje opremljena. Omogućit će još bolje uvjete za rad i skrb o bolesnicima.

**SUMMARY:** This short article describes the history and provides an overview of the work at the Pula General Hospital Coronary Care Unit. It provides insight into the methods and options for patient treatment and care. A new hospital is under construction, which will be even better equipped. It will allow even better working conditions and quality of patient care.

**KLJUČNE RIJEČI:** koronarna jedinica, Pula.

**KEYWORDS:** coronary care unit, Pula.

**CITATION:** Cardiol Croat. 2019;14(11-12):301-3. | <https://doi.org/10.15836/ccar2019.301>

**\*ADDRESS FOR CORRESPONDENCE:** Marina Jelinić, Opća bolnica Pula, Aldo Negri 6, HR-52100 Pula, Croatia. /

Phone: +385-52-376-216 / E-mail: [marina.jelinic@obpula.hr](mailto:marina.jelinic@obpula.hr)

**ORCID:** Marina Jelinić, <https://orcid.org/0000-0001-7731-4348>

**TO CITE THIS ARTICLE:** Jelinić M. Coronary Care Unit at the Pula General Hospital. Cardiol Croat. 2019;14(11-12):301-3. | <https://doi.org/10.15836/ccar2019.301>

**TO LINK TO THIS ARTICLE:** <https://doi.org/10.15836/ccar2019.301>

**B**olnica u Puli osnovana je davne, 1896. godine. Služba Interne medicine jedna je od najstarijih i najveća po broju odjela i opsegu posla. Koronarna jedinica započela je s radom 1971. godine, a osnovao ju je kardiolog dr. Guido Rauch pod nazivom Jedinica intenzivne njegе. Jedinica je zbrinjavala sva hitna internistička stanja.<sup>1</sup> Uvođenjem privremenog elektrostimulatora srca započeli su dojeni pulske kardiologije dr. Rauch i dr. Jukić već 1976. godine s metodom naslijepo (bez rendgenskog snimanja).<sup>2</sup>

U današnjim prostorima djelujemo od 2000. godine, kad se odvajamo od Opće intenzivne i nosimo naziv Koronarna jedinica. Od 2010. započeli smo s implantacijom elektrostimulatora srca. Zbrinjavamo sva hitna koronarna zbivanja. Za razliku od početaka, kad su bila četiri kreveta, dva monitora, defibrilator i jedan aparat kao privremeni elektrostimulator<sup>1</sup>, danas se radi u obnovljenim prostorima (**slika 1**, **slika 2**). Postoji šest novih modernih bolničkih kreveta koji svojim mnogobrojnim funkcijama uvelike olakšavaju rad s teškim bolesnicima. Pokraj svakog kreveta postoji monitor s funkcijama: za praćenje ritma i frekvencije srca, za praćenje krivulje arterijskoga tlaka, zasićenosti kisikom, centralnoga arterijskoga tlaka, krivulje tjelesne temperature i dr. U Koronarnoj jedinici postoji centralna jedinica na kojoj, osim monitoringa bolesnika u koronarnoj jedinici, telemetrijski pratimo do troje bolesnika na odjelu. Na dvama respiratorima postoji mogućnost provođenja mehaničke ventilacije, kao i neinvazivne ventilacije. Uz svaki krevet postoji zatvoreni sustav za aspiraciju dišnih putova.

**T**he hospital in Pula was founded in 1896, a long time ago. The Internal Medicine Department is one of the oldest departments and the largest by number of wards and scope of responsibilities. The Coronary Care Unit (CCU) was opened in 1971 and was founded by Dr Rauch Guido, a cardiologist, and was called the Intensive Care Unit at the time. The unit managed all emergency internal medicine conditions.<sup>1</sup> Implantation of temporary pacemakers was started as early as 1976 and was performed blindly (without X-ray imaging) by the masters of cardiology from Pula, Dr Rauch and Dr Jukić.<sup>2</sup>

We have been in our current space since 2000, when we separated from the General Internal Medicine Department and became the CCU. Pacemaker implantation began in 2010. We provide care and management for all coronary events. The unit initially had four beds, two monitors, a defibrillator, and one temporary pacemaker device<sup>1</sup>, whereas we now work in renovated rooms (**Figure 1**, **Figure 2**). We have six new modern hospital beds, and multitude of extra functions that they provide significantly facilitate care for severely ill patients. Every bed has a monitor with the following functions: heart rhythm and frequency monitoring, arterial waveform monitoring, monitoring of oxygenation, of central arterial pressure, core body temperature, etc. The CCU has a central monitoring system that in addition to monitoring the patients in the coronary unit also allows us to telemetrically monitor up to three patients at the department. Two of our respirators can provide mechanical ventilation

**RECEIVED:**

July 16, 2019

**ACCEPTED:**

September 17, 2019





FIGURE 1. The Coronary Care Unit.



FIGURE 2. The new hospital.

Opremljeni smo s dvojim kolicima s potrebnim monitorm, lijekovima i ostalim potrebnim materijalom za postupak oživljavanja bolesnika. Izlazimo na odjel kao tim za postupke oživljavanja. Za potrebe postupka transkutane elektrostimulacije postoje tri uređaja. U mogućnost smo novim elektrokardiografskim aparatom snimiti EKG i preko bežične mreže nalaz spremiti u arhiv.

Za transport bolesnika koristimo se krevetima, a tamo gdje to nije moguće, imamo ležaj s ogradicama za sprječavanje pada. Ležaj je moguće prilagoditi po visini, a postoji mogućnost držača za infuziju. Kada se pokaže potreba za pratnju bolesnika u klinički bolnički centar, postoji putni monitor, kao i torba za hitna stanja. Ostale premještaje u kliniku organiziramo s pomoću sanitetskog prijevoza Istarskih domova zdravlja.

Da bismo mogli sve radne zadatke (**slika 3**) uspješno obaviti, potrebni su i ljudski resursi. Trenutačno na odjelu radi pet liječnika specijalista interne medicine – specijalisti kardiologije, te dvije specijalizantice iz kardiologije. Na odjelu radi

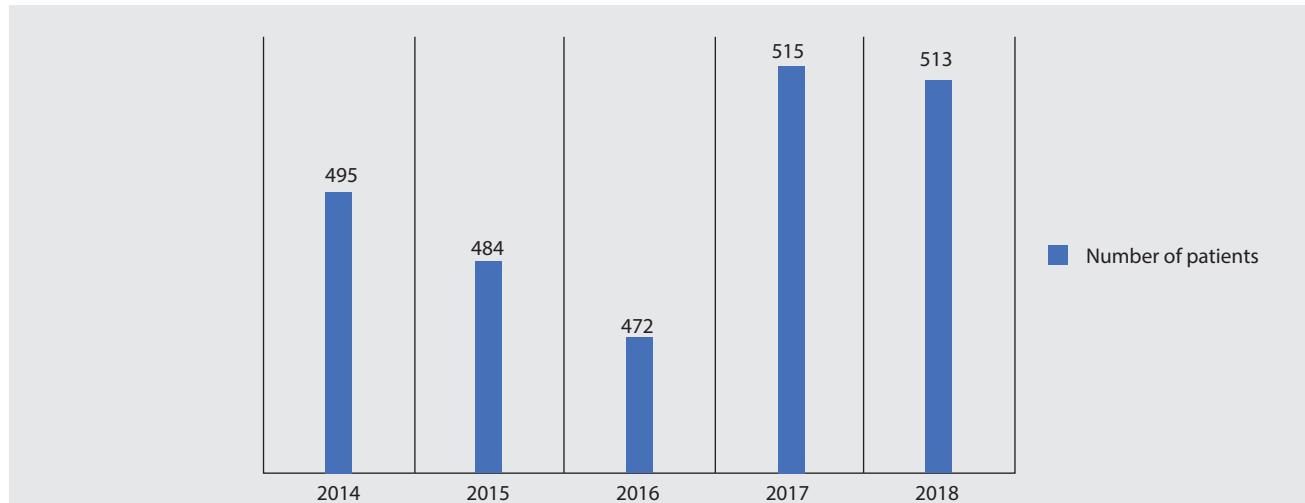
as well as non-invasive ventilation. Every bed has a closed system for airway ventilation.

We are equipped with two carts with the necessary monitors, medications, and other materials needed for reanimation. We act as the department's reanimation team. There are three transcutaneous pacing devices available. Using our new electrocardiography device, we can record the ECG and use the wireless network to store it in the archive.

Patient transport is done using beds; when that is not possible, we have a special bed with bar to prevent patients from falling. The height of this bed can be adjusted, and it has an infusion bag holder. If it becomes necessary to transport the patient to the clinical hospital center, we are equipped with a portable monitor and an emergency supplies bag. Other transfers to the clinic are organized with the help of ambulance transport from other Istrian health centers.

In order to perform all our duties (**Figure 3**), we need human resources as well. The department currently employs five internal medicine physicians – cardiologists – and two cardiology residents. The department also employs one nurse with a master's degree, one with a bachelor's degree, and twelve general care nurses. A nurse and one hospital cleaner are available on demand to assist in patient transfer.

We received the City of Pula Charter award in 2007 for our dedicated work. We are especially proud of our patient who nominated us for the award and who recognized our selfless work and efforts to save our patients' lives. We will continue working with the same dedication, as depicted by the mural above the entrance to our institution (**Figure 4**).



**FIGURE 3. Number of patients treated between 2014 and 2018.**

jedna magistra sestrinstva; jedna prvostupnica sestrinstva i dvanaest sestara opće njege. Kao pomoć u prijevozu bolesnika dostupni su jedna bolničar na zahtjev i jedna spremičica.

Za naš predani rad nagrađeni smo 2007. godine Poveljom Grada Pule. Posebno smo ponosni i zahvalni predlagajući (našem bolesniku), koji je prepoznao nesebičan rad i trud u borbi za život. Nastavljamo dalje jednakom predano, kako prikazuje i mural iznad ulaza u ustanovu (**slika 4**).



**FIGURE 4. The mural above the entrance to the institution.**

#### LITERATURE

1. Maretić, Zvonimir. Zbornik zdravstva u Istri: Zbornik zdravstva u Istri : povodom 35-godišnjice zdravstvene službe SR Hrvatske u Puli : [1947-1982]. Pula: Zdravstvene radne organizacije Istre, OO Zbora liječnika Hrvatske, Istra : Znanstvena jedinica Medicinskog centra Pula, u osnivanju, 1982.
2. Knjiga sažetaka 1. kongresa Hrvatskoga kardiološkog društva. Opatija, 1993.