

## Department of Pediatric Cardiac Surgery in Gdansk in its new location – previous activity and perspectives for development



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### Abstract

The Department of Pediatric Cardiac Surgery in Gdansk is the only pediatric cardiac surgery center in northern Poland providing comprehensive treatment to children with congenital heart defects. The Department of Pediatric Cardiac Surgery in Gdansk currently offers a full spectrum of advanced procedures of modern cardiac surgery and interventional cardiology dedicated to patients from infancy to adolescence. January 19, 2016 marked the official opening of its new location.

**Key words:** pediatric cardiac surgery, Gdansk, interventional cardiology, hybrid technique.

The Department of Pediatric Cardiac Surgery in Gdansk is the only pediatric cardiac surgery center in northern Poland providing comprehensive treatment to children with congenital heart defects. The department was established in 2008 as a subdepartment of the Mikołaj Kopernik Hospital in Gdansk [1]. This was made possible by a decision of the Pomeranian local government, which embarked on a mission to develop a modern center providing comprehensive surgical treatment to children. A new cardiac surgery subdepartment was created based on the existing Pediatric Surgery Clinic, complementing the treatment offer of the hospital with highly specialized procedures for children with congenital heart defects.

In its first location, the department received support from the Polsat Foundation, which co-funded the construction and adaptation works in the rooms intended for the pediatric cardiac surgical team. The Great Orchestra of Christmas Charity (WOŚP, *Wielka Orkiestra Świątecznej Pomocy*) Foundation purchased the basic equipment for the department, enabling the team to initiate their congenital heart defect treatment program in its full scope and,

### Streszczenie

Oddział Kardiologii Dziecięcej w Gdańsku jest jedynym ośrodkiem kardiologii dziecięcej zajmującym się kompleksowym leczeniem wrodzonych wad serca u dzieci na obszarze północnej Polski. Obecnie na Oddziale Kardiologii Dziecięcej w Gdańsku możliwe jest wykonanie pełnego zakresu zaawansowanych procedur współczesnej kardiologii i kardiologii interwencyjnej, od noworodka do okresu nastoletniego. 19 stycznia 2016 r. uroczyste otwarto nową siedzibę w Szpitalu im. św. Wojciecha w Gdańsku-Zaspie.

**Słowa kluczowe:** kardiologia dziecięca, Gdańsk, kardiologia interwencyjna, zabiegi hybrydowe.

thanks to a heart-lung machine received from the WOŚP Foundation, to conduct surgery with cardiopulmonary bypass in the smallest children. When a pediatric interventional radiology laboratory was opened and the team was supplemented with specialists in interventional cardiology, it became possible to perform interventional and hybrid procedures, which served as a foundation of the “Gdansk Hybrid Heartlink” program. Prof. Zbigniew Religa, the Minister of Health, became the honorary patron of the Department, while Prof. Bohdan Maruszewski, the Head of the Club of Polish Cardiac Surgeons, offered his professional and organizational support.

The passage of time revealed the actual needs of the region in terms of comprehensive pediatric cardiac surgery, mainly in neonates and infants with congenital heart defects. Demographic requirements resulted in the strengthening of the pediatric cardiac surgery program in Gdansk, together with the separation of pediatric and cardiac surgical activity. It is estimated that the Department of Pediatric Cardiac Surgery operates within an area populated by approximately 5 million people from northern Poland. Apart

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**Fig. 1.** Department of Pediatric Cardiac Surgery – formal opening on January 19, 2016. In the picture – from the left: Prof. Bohdan Maruszewski – Head of the Club of Polish Cardiac Surgeons, Jurrek Owsiak – Head of WOŚP (from the side), Ireneusz Haponiuk, Dr Dariusz Kostrzewa – President of COPERNICUS PL Sp. z o.o., Mieczysław Struk, Marshal of the Pomeranian District



**Fig. 2.** Postoperative Ward at the new seat of the Department of Pediatric Cardiac Surgery in Gdansk (April 2016)



**Fig. 3.** Team of the Department of Pediatric Cardiac Surgery in Gdansk (December 2015)



**Fig. 4.** Opening of the construction program for the “Serce Dziecka” (“Child’s Heart”) hotel in Gdansk-Zaspa on March 7, 2016; 3<sup>rd</sup> “Otwarte Serca” (“Open Hearts”) Concert at the Primate’s Palace in Warsaw

from the Pomeranian region, it also serves the following voivodeships: Kuyavian-Pomeranian, Warmian-Masurian, West Pomeranian, and Podlaskie. Neonates and infants constitute 70–80% of all patients hospitalized at the department every year.

Since its creation, the department has been constantly expanding its activity, educating young medical staff, acquiring new modern equipment, and extending the scope of the procedures performed. The Department of Pediatric Cardiac Surgery in Gdansk currently offers a full spectrum of advanced procedures of modern cardiac surgery and interventional cardiology dedicated to patients from infancy to adolescence [2]. It focuses on multi-specialist cooperation in the selection of optimum treatment provided by the “heart team”, which evolved into the “hybrid heart team” with the development of a hybrid program in the center [3, 4].

An advanced prenatal diagnostic program, conducted at the Outpatient Cardiology for Children in cooperation with obstetrics and gynecology teams, constitutes an important part of the holistic care provided to neonates suffering from heart defects. The growing popularity of prenatal examina-

tions allows for quick diagnosis of cardiovascular defects in a fetus, enabling the preparation of multi-profile, comprehensive care and immediate neonatal treatment at the Gdansk-Zaspa specialist hospital before the child is born.

The year 2016 saw another important stage in the development of the Department of Pediatric Cardiac Surgery in Gdansk. January 19, 2016 marked the official opening of its new location, built on a site acquired after the merger of two district hospitals in Gdansk into the integrated structure of COPERNICUS Podmiot Leczniczy Sp. z o.o. The adaptation and major renovation of the department, located on the sixth floor of the Św. Wojciech Hospital in Gdansk-Zaspa, was possible thanks to another investment made by the Pomeranian Marshal’s Office. The determination of Mieczysław Struk, the Marshal of the Pomeranian Voivodeship, and support of Hanna Zych-Cisoń, the Deputy Marshal for Health, enabled the efficient reorganization of the Department of Pediatric Cardiac Surgery, which received a worthy seat reflecting the needs of the region. The department was built in accordance with recommendations provided by scientific societies, clearly specifying the op-

imum conditions for the operation of a modern pediatric cardiac surgery center.

The reinforced resources of the Department of Pediatric Cardiac Surgery of the Św. Wojciech Hospital in Gdansk-Zaspa currently comprise a 16-bed ward divided into a closed postoperative section (8 postoperative stations, including 2 isolation rooms) and an open section with 8 beds in 2-person rooms (mother and child system) and separate isolation rooms at the cardiac intensive care unit for temporary use by patients with special needs (Figs. 1 and 2). The implementation of therapeutic tasks is ensured by a multi-specialist team (cardiac surgeon, pediatric cardiologist, interventional cardiologist, cardiac anesthesiologist, pediatrician, pediatric surgeon, intensive postoperative care nurses, perfusionists, radiology technicians) with constant access to an operating theater and an interventional radiology laboratory (Fig. 3). The team was built based on the rules of cooperation adopted by renowned Polish and foreign pediatric cardiac surgery centers cooperating with the department [5–7]. This specialist team is capable of accrediting residents and training specialists in cardiac surgery, pediatric cardiology, and neonatology. The current plans of the COPERNICUS PL company include the construction of a hotel for the parents of children with congenital heart defects coming to Gdansk for treatment (Fig. 4) and a modern surgical ward with a hybrid operating theater dedicated to pediatric cardiac surgery.

Hoping for further effective operation of the Department of Pediatric Cardiac Surgery in Gdansk, with the well-

being and safety of children with congenital heart defects in Poland in mind, we encourage specialists from other centers to cooperate with us as partners in the future.

## Disclosure

Authors report no conflict of interest.

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