# The formation of a collaborative network in Poland: the Perioperative and Critical Care Research Group (PERI-CRIT)

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The Perioperative and Critical Care Research Group (PERI-CRIT) was officially launched in April 2024. This initiative brings together 22 Polish health-care institutions, primarily large and university hospitals across the country (Figure 1).

PERI-CRIT draws inspiration from successful international collaborations such as the Australian and New Zealand Intensive Care Society (ANZICS), Collaboration for Research in Intensive Care (CRIC), the UK Perioperative Medicine Clinical Trials Network (POMCTN), and many others. Such collaborations have made substantial contributions to improving outcomes for critically ill patients through research and networking. PERI-CRIT aims to follow this

model, creating a national platform to link researchers and clinicians in a complementary network focused on advancing critical care and perioperative medicine.

#### RATIONALE AND AIMS OF PERI-CRIT

The formation of PERI-CRIT is a response to the growing recognition that high-quality care in critical and perioperative settings requires robust, evidence-based practices supported by research. In recent years, practice-changing studies in perioperative and critical care medicine have increasingly relied on large, multicenter trials. Without extensive collaboration, it has become virtually impossible to conduct studies that can truly influence

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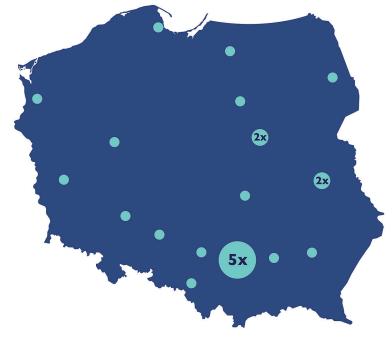


FIGURE 1. Distribution of PERI-CRIT collaborating hospitals in Poland

### CORRESPONDING AUTHOR:

Wojciech Szczeklik, Centre for Intensive Care and Perioperative Medicine, Jagiellonian University Medical College, 1–3 Wrocławska St., 30–901 Krakow, Poland, e-mail: wojciech.szczeklik@uj.edu.pl clinical practice on a broad scale. This is especially true in fields such as critical care, where the complexity of patient care and the variability of outcomes demand large datasets and collective expertise.

PERI-CRIT was formed to address this challenge by uniting hospitals and clinicians in a shared mission. The 22 hospitals in the network represent a diverse range of experiences and expertise, making it possible to conduct large-scale research, that can lead to significant improvements in patient care. Through this network, Polish hospitals can now pool their resources and knowledge to undertake studies that would be impossible for individual institutions to conduct alone.

The primary objective of PERI-CRIT is to advance patient care by promoting and supporting high-quality research in the field of critical care and perioperative medicine. In doing so, the group aims to contribute to the ongoing efforts to improve outcomes for critically ill patients and those undergoing surgery. Furthermore, PERI-CRIT aspires to address the needs of patients' families, recognizing the importance of holistic care in these high-stress medical environments.

In addition to these national goals, PERI-CRIT also aims to collaborate with other international organizations that share similar objectives, and to participate in multinational clinical trials. By doing so, the group will not only contribute to global research efforts but will also ensure that Polish hospitals are part of international advancements in critical care. This may also help to standardize clinical practices across the collaborating hospitals by utilizing research findings to inform protocols and guidelines.

# A VISION FOR NATIONWIDE DATABASES AND REGISTRIES

One of the long-term goals of PERI-CRIT is to create nationwide registries and databases for critical care and perioperative medicine. These registries will provide a valuable source of data for future research, enabling the identification of trends, the evaluation of interventions, and the monitoring of patient outcomes across the country. Similar registries in other countries have driven significant improvements in patient care, and PERI-CRIT aims to replicate that success in Poland. By establishing these databases, PERI-CRIT also hopes to contribute to international data-sharing efforts. This exchange of information will allow Polish hospitals to benchmark their performance against international standards, gaining insights from global best practices while contributing their own findings to the international research community.

# **EDUCATION**

The collaboration also offers a platform for educational initiatives designed to train the next generation of clinicians and researchers in critical care and perioperative medicine in collaboration with intensywna.pl (https://intensywna.pl). By creating a strong educational component, PERICRIT will help ensure that the knowledge generated by research is not only shared but also applied in clinical practice, ultimately benefiting patients across Poland.

# BUILDING ON EXISTING COLLABORATIONS

Before PERI-CRIT was officially established, many of its member hospitals had already participated in large international trials, laying the groundwork for the collaborative network. One key example is the VIP (Very Old Intensive Care Patients) Study, which focused on the treatment and care strategies for elderly patients in intensive care units [1]. This and other similar projects demonstrated the potential of large-scale collaboration and underscored the necessity of forming a formal research group to build on these successes.

With PERI-CRIT now in place, the network has the infrastructure to facilitate even more ambitious projects. Hospitals that have already collaborated on important studies are now well-positioned to engage in more complex, larger-scale research that

can lead to practice-changing results. Several initiatives are already ongoing, with some large, multicenter clinical trials supported by grants from the Medical Research Agency, including:

- Ivabradine for Prevention of Myocardial Injury After Noncardiac Surgery Trial (PREVENT-MINS trial; NCT-05279651): one of the largest perioperative care interventional studies, focused on preventing major adverse cardiovascular events in non-cardiac surgery.
- Vitamin D<sub>3</sub> Supplementation in Critically III Patients Undergoing CRRT

   (NephroD Study; NCT05657678):
   aims to optimize nutritional support in critically ill patients with kidney disease.
- The effect of noradrenaline infusion versus standard blood pressure management on perioperative HYPotension in NOn-caRdiac surgery (HYP-NOR Study): evaluates the use of noradrenaline in perioperative settings.

Without the collective effort of multiple hospitals, trials of this scale and importance would be extremely difficult, if not impossible, to conduct.

## **SUMMARY**

By establishing a nationwide network of researchers and clinicians, PERI-CRIT hopes to make lasting contributions in the fields of critical care and perioperative medicine, with the goal of advancing clinical practice and improving patient care in Poland and beyond.

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## **APPENDIX**

Detailed list of sites participating in PERI-CRIT network with principal investigator

- 1. Jagiellonian University Medical College, Krakow (Wojciech Szczeklik, MD, PhD)
- 2. Military Hospital in Krakow (Jacek Górka, MD, PhD)
- 3. Krakow's St. John Paul II Specialized Hospital (Mirosław Ziętkiewicz, MD, PhD)
- 4. University Hospital in Opole (Tomasz Czarnik, MD, PhD)
- 5. University Clinical Center in Warsaw (Janusz Trzebicki, MD, PhD, Paweł Andruszkiewicz, MD, PhD)
- 6. Specialist Hospital in Tarnow (Paweł Grudzień, MD)
- 7. University Hospital in Zielona Gora (Bartosz Kudliński, MD, PhD)
- 8. University Clinical Hospital in Wroclaw (Waldemar Goździk, MD, PhD)
- 9. The Regional Specialist Hospital in Olsztyn (Dariusz Onichimowski, MD, PhD)
- 10. University Clinical Center in Gdansk (Radosław Owczuk, MD, PhD)
- 11. University Clinical Hospital in Bialystok (Urszula Kościuczuk, MD)
- 12. Hospital of the Order of St. John of God in Krakow (Dorota Studzińska, MD, PhD)
- 13. Ludwik Rydygier Specialist Hospital in Krakow (Wojciech Mudyna, MD, PhD)
- 14. Specialist Hospital in Konskie (Wojciech Gola, MD, PhD)
- 15. Silesian Hospital in Cieszyn (Agnieszka Misiewska-Kaczur, MD, PhD)
- 16. University Clinical Hospital in Lublin
- 17. University Clinical Hospital in Poznan (Krzysztof Kusza, MD, PhD)
- 18. Independent Public Clinical Hospital No. 2 in Szczecin (Katarzyna Kotfis, MD, PhD)
- 19. University Clinical Hospital in Rzeszow (Mariusz Jednakiewicz, MD)
- 20. The Regional Specialist Hospital in Ciechanow (Jacek Milecki, MD, PhD)
- 21. Independent Public Clinical Hospital in Zabrze (Szymon Białka, MD, PhD)
- 22. Military Clinical Hospital in Lublin
- 23. Independent Public Clinical Hospital No. 1 in Szczecin (Joanna Sołek-Pastuszka, MD, PhD)