



Protez Hub

Results of the National Ukrainian Analytical Tour and Coordinating Convention - 2024

REPORT AND NEEDS ASSESSMENT

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INTRODUCTION

The ongoing war in Ukraine has resulted in continuous injuries, particularly among military personnel, with a notable number of amputations of one or more limbs. Hence, the quality of service delivery in this field, the advancement of professionals, and the utilization of effective technologies across all Ukrainian regions are crucial. Protez Hub, a non-profit organization and an official national P&O continuing education provider, has been developing the prosthetics sector in Ukraine since 2014. To assess the current state of the industry, in June-July 2024, a Protez Hub consultant and triple amputee-veteran, Roman Maksymets, traveled extensively, **visiting 73 prosthetics and orthotics centers** in various Ukrainian regions with a specifically tailored questionnaire. The objective of this analytical journey was to evaluate the distribution and service levels of centers in different areas, as well as to identify staffing and technological requirements for future development.

The Protez Hub team has processed the findings and outlined them in this report. In certain regions like Rivne, Chernihiv, Kherson, and Sumy, prosthetics and orthotics centers are either operating remotely or have closed down. There has been a notable advancement in the level of prosthetics and orthotics technologies and capabilities in Ukraine compared to 2016. The outcomes of the tour were shared at the Inaugural Protez Hub Coordinating Convention on August 22, 2024. The recommendations and resolutions formulated during the Convention are detailed in this publication.

“I believe that something that needs to be improved is 1) establishing economically justified prices, 2) control over the production and quality of prostheses and orthoses” - respondent

“Building a system of education - professional specialists for the prosthetics industry - is crucial” - respondent

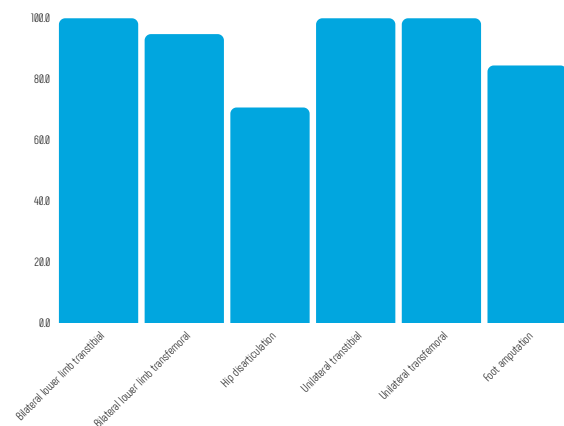
TYPES OF TRAUMA THAT P&O CENTERS DEAL WITH

Limb amputations of various levels (with possible accompanying conditions) and neurotrauma are the main types of injuries that prosthetics and orthotics centers in Ukraine deal with. Among the respondents, 100% of centers provide prostheses of one or two lower limbs at the transtibial level (TT) and one lower limb at the transfemoral level (TF). 94.8% of centers work with bilateral amputation of the lower limbs at the transfemoral level (TF) and 70.7% of the respondents fabricate prostheses for hip disarticulation cases (distributed unevenly by region). In the case of foot amputation, 84.5% of centers can produce a suitable device for the patient.

Various types of prostheses are manufactured using various technologies. The most common types of prosthetic sockets in case of transfemoral amputations are IC sockets, and in some cases - quadrilateral.

Among the respondents, 89.7% of the centers fabricate prostheses for unilateral and bilateral limb amputations at the transradial level (TR) and for unilateral limb amputations at the transhumeral level (TH). Prostheses for unilateral limb amputations involving shoulder disarticulation are made by 84.6% of centers, and for bilateral limb amputations at the transhumeral level (TH) - by 76.9% of the respondents. 35.9% of respondents work with partial hand amputation.

Trunk, upper and lower limb orthotics services are provided by 67.2% of respondents.



TECHNOLOGIES USED BY P&O CENTERS

Specialists of prosthetics and orthotics centers of Ukraine use a variety of technologies (use of flexible thermoplastic, Direct Socket technology, etc.), but the availability of some technologies (fitting of hydraulic and microprocessor knee joint, fabrication of modern prosthetic socket designs (sub IC), fitting of upper limb prostheses with an external energy source, etc.) is not uniform.

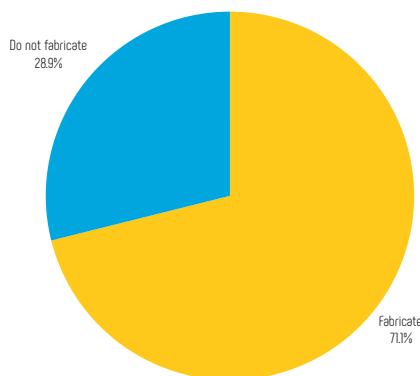
"It is very important to implement the latest technologies. Conduct training." - respondent

"What we need is open registries, good equipment, modern components, timely customs clearance, open market for components, training in medical universities as prosthetists and orthotists." - respondent

In the Volyn region, prosthetics and orthotics centers primarily specialize in fitting mechanical prostheses for the lower limbs.

- 55.6% of respondents nationally mentioned they can fit microprocessor knee joints.
- 33.3% of respondents indicated working with upper limb prostheses powered by an external energy source.
- Swimming prostheses are usually provided upon patient request.

Centers offering orthoses produce both hinged and non-hinged orthoses made of textile and laminated plastics.



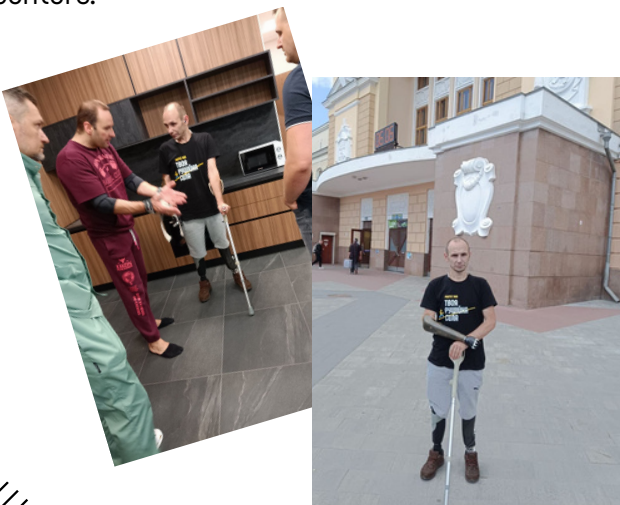
THE POSSIBILITY OF FABRICATING ACTIVITY SPECIFIC PROSTHESES

% of P&O centers that are able to fit microprocessor knee joints

55.6

EXISTING HUMAN RESOURCES AND TRAINING OF PROFESSIONALS

Specialists working at prosthetic and orthotic facilities have different levels of education (from a secondary education diploma to a Master's degree) and in different areas of study. 51.5% of respondents indicated that their company employs at least 1 specialist with at least a bachelor's degree in a related field. The distribution is uneven. Specialized training of most specialists is chaotic and takes place in the form of short refresher courses and internships at the prosthetics and orthotics centers.



In 2023, the professional standard "Prosthetist-Orthotist" was introduced (based on international standards) by Protez Hub.

Today, there are 14 experienced specialists in Ukraine who meet the new professional standard "Prosthetist-orthotist". Another 26 are preparing to confirm their qualifications at the Kharkiv National Medical University in cooperation with Protez Hub in the fall of 2024. According to a detailed survey on the required level of education of practitioners at the centers, the majority of respondents indicated that it is necessary to have Prosthetic Orthotic Technicians (education at the level of a professional Junior Bachelor) and Prosthetists-Orthotists (education at the level of a Master's degree). The majority of respondents indicated that there is no need to introduce an additional specialized program in prosthetics and orthotics at the Bachelor's level.

EXISTING HUMAN RESOURCES AND TRAINING OF PROFESSIONALS

One of the comments from the respondents was that formal education should be officially structured - to approve the pathway of education in the field of prosthetics and orthotics. The majority of respondents also noted that practical improvement of knowledge and skills as part of the continuing education of practitioners is desirable and necessary.

A register of specialists who have confirmed their qualifications (Prosthetist-Orthotist or Prosthetic Orthotic Technician) has been created on the Protez Hub platform - the information in the register is being updated.

"1) More qualified prosthetists; 2) educational base; 3) access to world technologies" - respondent

Register of specialists
protezhub.com/rejestr



NUMBER OF CENTERS THAT HAVE SPECIALISTS WITH A BACHELOR'S DEGREE OR HIGHER

"The main thing is training, professional development, and support from the authorities. New professionals who want to work in the field of prosthetics" - respondent

"Systematic educational programs with a large practical component. Defining specific treatment protocols for patients with bilateral amputations" - respondent

"Training of relevant specialists (prosthetists and physical or occupational therapists). Exchange of experience between Ukrainian and foreign specialists" - respondent

FIRST ANNUAL PROTEZ HUB COORDINATING CONVENTION

On August 22, 2024 a coordinating convention was held in Kyiv in order to present the results of the analytical tour, to discuss the main issues in the industry and to come up with the potential next steps.

The coordinating convention was attended by the veterans who lost limbs, prosthetists, orthotists, representatives of other professional communities, representatives of medical universities where the Master's program in prosthetics and orthotics is being implemented, heads of prosthetics-orthotics centers, representatives of relevant ministries and departments, the Presidential Commissioners for Rehabilitation of Servicemen and for Accessibility, as well as representatives of NGOs and international agencies.

The atmosphere in the convention hall was one of collaboration and shared commitment. Keynote speakers shared their insights on the latest advancements in prosthetic technology and the unique challenges faced by veterans and others who rely on these life-enhancing devices.

The event resulted in the development of the next steps and resolutions to be considered and adopted in order to improve the situation in a particular area.

"This meeting was an opportunity for all those involved to discuss the development of the prosthetics and orthotics industry and related rehabilitation in Ukraine, to talk about problems and challenges, and most importantly, to coordinate efforts to overcome them," said Tetiana Lomakina, Presidential Commissioner for Accessibility.



NEEDS AND PROBLEMS ASSESSMENT

The majority of P&O centers and convention attendees consider the following problems and needs to be urgent:

- Structuring of the formal education and determining the pathway for the future specialists from general secondary education to higher education;
- Short-term practical training workshops for practitioners across Ukraine and with the involvement of foreign specialists;
- Simplifying the Central Database system and the documentation processes;
- Offering services to patients based on their place of residence;
- MOH order 2083 needs to start working;
- Establishing fair competition between centers and eliminating corruption;
- Establishing economically justified billing system within the framework of the state program for the provision of assistive devices;
- Quality control of products and services;
- Informing the public about prostheses and orthoses and the state program for provision of assistive devices;
- Developing rehabilitation programs in all regions of Ukraine, specifically at the state healthcare facilities that would include rehabilitation at the community level..
- Establishing adequate multidisciplinary rehabilitation teams in all state hospitals across Ukraine;

“Amputees need to be accepted by the society. It starts with institutions that provide services to them. When a Medical Social Commission states that a transtibial amputee can only work from home - it creates additional problems” - respondent

“The main thing is training, professional development, and support from the authorities. New professionals who want to work in the field of prosthetics” - respondent

RESOLUTIONS

Within the next 6 months:

- Create professional exchange opportunities for the multidisciplinary teams from the Ukrainian civilian and military hospitals (NGO partners);
- Establish an amputee patient pathway coordination between the Ministry of Defense and the Ministry of Health of Ukraine (MOH and MOD);
- Establish the finalized requirements for a Prosthetist-Orthotist fast-track pathway and monitor the certification process (NGO partners, MOH, NQA);
- Develop an extended Master of Prosthetics and Orthotics program (NGO partners, MOH, MOES);
- Employ experienced amputees as social workers (peer-to-peer) and revise a social worker salary; train such workers (MoSP);
- Start the digitalisation of the application process for P&O services (MoSP);
- Improve P&O service quality monitoring (NGO partners, MoSP).

Within the next 24 months:

- Establish a better coordination of the multidisciplinary teams with the primary care professionals in the communities; conduct workshops (NGO partners, MOH);
- Establish a case management process and create a patient pathway coordinator profession within each multidisciplinary team (NGO partners, MOH, MoSP);
- Implement the extended Master of Prosthetics and Orthotics program (NGO Partners, Educational Institutions, MOH);
- Implement a cooperative P&O education program (NGO Partners, Educational Institutions, MOH);
- Establish the licensing process for P&O centers and develop a P&O service quality control mechanism (MoSP);
- Implement a better AT costing and reimbursement system (NGO partners, MoSP);
- Complete the digitalization of the application process for P&O services (MoSP).

CONCLUSIONS

The prosthetics and orthotics industry in Ukraine is well-developed, with processes constantly being improved. However, the availability of certain technologies is not uniform. In some regions, the availability of prosthetic and orthotic services is low.

There are clear and obvious gaps that need to be addressed: the system of education of specialists, improving the billing system within the state program for provision of assistive devices, eliminating corruption at various stages, and improving the rehabilitation of people with amputations in different regions of Ukraine at the state healthcare facilities and in their communities.

To tackle these challenges, a multifaceted approach is essential. First, enhancing the educational framework for specialists in prosthetics and orthotics is crucial.

This can be achieved through partnerships with international institutions, continuous professional development programs, and incorporating the latest technologies and methodologies into the curriculum.

Second, reforming the billing system within the state program is necessary to ensure transparency and efficiency. Implementing digital solutions can streamline processes, reduce paperwork, and minimize the opportunities for corruption.

Third, addressing corruption requires stringent oversight mechanisms and accountability measures. Establishing independent auditing bodies and encouraging whistleblower protections can help maintain integrity at all levels.

Finally, improving rehabilitation services involves investing in state healthcare facilities to ensure they are well-equipped and staffed. Training for healthcare providers on the latest rehabilitation techniques, along with community-based economic empowerment programs for amputees, can significantly enhance the quality of care for individuals who lost limbs.

By addressing these key areas, Ukraine can ensure an even better access to high-quality prosthetic and orthotic services, ultimately improving the quality of life for individuals who rely on them.

CONCLUSIONS

In 2023, with the assistance of the Ministry of Social Policy of Ukraine, the Ministry of Health of Ukraine and the Ministry of Education and Science of Ukraine, in cooperation with Ukrainian and foreign experts and based on the international standards, Protez Hub started working on the implementation of a professional standard and the formation of a sustainable system for training specialists at the “Prosthetist-Orthotist” level.

Moreover, the initiative aims to create a robust support network for professionals, facilitating mentorship and peer-to-peer learning. This community-driven approach not only improves the quality of care provided to patients but also promotes innovation and continuous improvement within the profession.

In the long term, the establishment of a comprehensive training system and professional standards will contribute significantly to the development of the rehabilitation sector in Ukraine. It will ensure that all individuals requiring prosthetic and orthotic services receive the highest level of care, tailored to their specific needs.

The dedication and enthusiasm of Ukrainian professionals, combined with the support of governmental and international bodies, pave the way for a brighter future in the field of prosthetics and orthotics. This collaborative effort highlights the importance of investing in education and professional development to achieve sustainable progress and improve the quality of life for countless individuals.

Protez Hub welcomes comments, additions and suggestions.
Please send them to contact@protezhub.com

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