TFK programme, funded projects 2023, Call for Ukraine

Project title: Oral and maxillofacial surgery training - experts of medicine in combining virtual 3D design and facial reconstruction

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In the current war conflict, craniofacial injuries occur in up to 30% of those wounded in combat. Reconstructions and care of facial combat injuries such as fracture comminution, tissue defects and postoperative complications require expertise and experience. Peacetime surgical experience do not provide sufficient capabilities due to small numbers of these specific injuries. Thus, peacetime surgical training does not provide enough skills for treating combat injuries. Therefore, medical education should be targeted to the current needs.

The planning of surgical treatment has progressed rapidly from 3D modeling to more versatile forms of virtual planning that combine technical sciences and the applied use of medicine. New technical applications support treatment decisions and increase the quality of surgical treatment even during wartime. In the field of oral and maxillofacial surgery and specialization training, the expertise of medicine and dentistry is

combined. A special educational entity is included in the educational programs of the partner universities. The first goal of the project is to support and develop specialist training in oral and maxillofacial surgery in the new environment. The project is based on the educational needs of modern medicine and the increased need for experts in facial traumatology due to exceptional circumstances.

In addition, scientific expertise is required to evaluate the educational outcome. The second goal of the project is to cooperate in PhD education. Part of the facial traumatologists must be trained as scientific experts to reach knowledge of treatment outcomes and to develop modern technologies. The aim is to improve the basic training of researchers, such as formulation of optimal research questions, study designs and research entities, with systematic training.

Detailed objectives are set for the training. Constructive alignment is followed according to good principles of university pedagogy. The training consists of preliminary assignments, group assignments, lectures, oral presentations, and cooperation training as part of international teamwork. Participants will also familiarize themselves with clinical work. Remote contacts are organized using the Zoom and Teams platforms and part of the teaching is carried out as face-to-face. Participants receive feedback according to formative and integrative assessment, and peer feedback for teachers will be used.

By the project and enhanced cooperation, it is possible to improve facial traumatology expertise both in Ukraine and in Finland, and enable scientific evaluation of training and treatment methods, including 3D technologies and customized care. With the help of the project, the partner universities adapt to the changed educational requirements. Based on these, the project can offer oral and maxillofacial surgical education and experts for evidence based medicine, which promote well-being and health for facial trauma patients.

