

VILNIUS UNIVERSITY SUBJECT DESCRIPTION OF DOCTORAL STUDIES

Scientific Area/eas, Field/ds of Science	Medical and Health Sciences (M 000): Medicine (M 001)			
Faculty, Institute, Department/Clinic	Faculty of Medicine, Institute of Clinical Medicine Clinic of Gastroenterology, Nephrourology and Surgery			
Course unit title (ECTS credits, hours)	Abdominal Surgery and Transplantology 10 credits (265 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	-	2	8
Method of the assessment (in 10 point system)	Oral exam. Consists of three questions.			
PURPOSE OF THE COURSE UNIT				
<p>To introduce the main diseases of abdominal surgery, their diagnosis and treatment algorithms. Emphasize the importance of explaining indications and contraindications for interventions to the patient, legal significance of documentation and related potential legal consequences. To acquaint with methods of performing operations in abdominal surgery, their stages and modifications, the introduction of modern techniques (minimally invasive and others). To acquaint with basics of abdominal organs and tissue transplantation, importance of donation, legal aspects, criteria for donor and recipient selection, principles of preparation, stages of abdominal organ transplantation operations, their indications and contraindications, importance of early diagnostics and management of possible complications, the care in post-transplant period. To acquaint with results of abdominal organ transplantations and possibilities to optimize them. To emphasize the importance of multidisciplinary (MDT) consensus in discussion of modern treatment strategies and decision making.</p>				
THE MAIN TOPICS OF COURSE UNIT				
<p>Historical development of abdominal surgery and transplantology in the world and Lithuania. Topographic anatomy of the abdominal wall and abdominal cavity. External landmarks. Principles of gastrointestinal organ surgery. Minimally invasive surgery of abdominal organs. Laparoscopy: indications, contraindications, equipment, techniques, complications. Endoscopic surgery. Interventional radiology. General principles of sonoscopy, X - ray, computed tomography and magnetic resonance imaging, contrast media. Endoluminal sonoscopy (transrectal, transesophagogastroduodenal). Hybrid and robotic abdominal surgery. Diagnostic and treatment algorithms of "Acute abdomen". Polytrauma: etiology, semiotics, principles of diagnostics and treatment. Classification of polytrauma. Closed and open abdominal injuries - diagnostics and treatment tactics. Peritonitis. Peritoneal topography, morphology, function. Causes of peritonitis. Primary and secondary peritonitis: causes, clinic, diagnosis, treatment. Mechanical intestinal obstruction: etiology, pathogenesis, clinic, diagnostics, classification, treatment. Acute intestinal circulatory disorders. Acute appendicitis: clinic, diagnostics, treatment.</p> <p>Abdominal wall hernias: etiology, classifications, pathogenesis, clinic, diagnostics, differential diagnostics, complications, methods of surgery. Minimally invasive surgery of abdominal wall hernias: indications, surgical techniques, complications, results. Incarcerated hernia.</p> <p>Gastroesophageal reflux disease: etiology, classifications, clinic, diagnostics, indications for surgery and treatment options. Laparoscopic treatment - indications,</p>				

surgical techniques, complications, results. Etiology of gastroduodenal ulcers, pathogenesis, clinic, differential diagnostics, complications, treatment, methods of surgery. Gastroduodenal bleeding: diagnostics and treatment. Esophageal bleeding: causes, clinic, diagnostics, treatment. Intestinal bleeding: causes, clinic, diagnostics, treatment. Endoscopic gastric surgery (polypectomy, endoscopic hemostasis and other). Etiology, pathogenesis, clinic, diagnostics, differential diagnostics, classifications, treatment options, methods of surgery, principles of lymphadenectomy. Diseases of small intestines: polyps, diverticula, tumors, inflammation, trauma (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, surgical methods).

Liver diseases - tumors, simple and parasitic cysts, abscesses (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, methods of surgery). Gallbladder and bile duct diseases: gallstone disease, tumors, inflammation (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, treatment). Acute cholecystitis. Laparoscopic surgery of the gallbladder and bile ducts. Endoscopic operations of bile ducts (papillosphincterotomy, lithectomy, stenting). Pancreatic diseases: acute and chronic pancreatitis, tumors, pseudocysts, pancreato- and pancreaticolithiasis (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, operations, minimally invasive treatment procedures). Endoscopic internal drainage of intraabdominal cavities forming complications (pseudocystogastro- and duodenostomies).

Diseases of large bowel: tumors, polyps, diverticulosis, inflammatory diseases (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, treatment options, operations). Rectal cancer: etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, treatment. Laparoscopic colon surgery (resection, rectopexy and other). Transrectal endoscopic microsurgery (TEM). Minor proctology: hemorrhoids, anal abscess and fistulas, fissures (etiology, pathogenesis, clinic, diagnostics, differential diagnostics, complications, methods of surgery). Diseases of spleen (etiology, clinic, diagnostics and treatment). Laparoscopic splenectomy: indications, surgical technique, complications, results. Adrenal diseases (etiology, clinic, diagnostics and treatment). Laparoscopic adrenalectomy: indications, surgical technique, complications, results.

Transplantology. Historical development of organ and tissue transplantation. Terminology. Donor identification and assessment. Donor types, search of donors, contraindications, clinical evaluation, diagnosis of brain death, methods, conditions, legislation, organ distribution rules. Tissue and organ procurement, preservation, transplantation. Clinical immunosuppression.

Liver transplantation: indications, contraindications, preparation, technique, peculiarities of the postoperative period, results. Pancreas transplantation: indications, contraindications, preparation, technique, peculiarities of the postoperative period, results. Pancreatic cell transplantation: indications, surgery technique, results.

RECOMMENDED LITERATURE SOURCES

1. Kęstutis Strupas monografija „Kepenų transplantacija“ Vilniaus universiteto leidykla. 2013, 144 p.
2. K. Strupas ir kt. Pilvo ertmės organų transplantacijų praktinis vadovas. Chirurgija. Charibdė, 2019.
3. R.W. Busuttil, G.B.Klintmalm „Transplantation of the Liver“, 3rd edition, Elsevier, 2015.
4. M.J.Englesbe, M.W.Mulholland “Operative Techniques in Transplantation Surgery”, 1st edition,Wolters, 2015.
5. N. Hadzic, U. Baumann et al. „Pediatric Liver Transplantation: A Clinical Guide“, 1 st edition, Elsevier, 2020.

6. Z. Milan, C. Goonasekera „Anesthesia for Hepatico-Pancreatic-Biliary Surgery and Transplantation, Springer, 2020.
7. Sabiston Textbook of Surgery „The Biological Basis of Modern Surgical Practice“, 20th edition, Elsevier, 2021.
8. Quick C.R.G. et al. Essential Surgery Problems, Diagnosis and Management, 6th edition, Elsevier, 2020.
9. Brunicaudi F. et al. Schwartz’s Principles of Surgery, 11-th edition, 2019.
10. Jones D.B., Schwaitzberg S. Operative Endoscopic and Minimally Invasive Surgery, 2019.

CONSULTING LECTURERS

1. Coordinating lecturer: Kęstutis Strupas (Prof. Habil. Dr.).

2. Aistė Kielaitė-Gulla (Assoc. Prof. Dr.).

3. Vitalijus Sokolovas (Assoc. Prof. Dr.).

4. Marius Petrulionis (Assist. Prof. Dr.).

APPROVED BY:

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:
29th of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė