Coursebook General Surgery

Department of General, Gastroenterological and Oncological Surgery
Collegium Medicum in Bydgoszcz
Nicolaus Copernicus University in Toruń

ACADEMIC YEAR 2017/2018
Chair: Prof. dr hab. Marek Jackowski

Dear Students of the 3rd and 4th year of the Medical Faculty, Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń,



Dear Ladies and Gentlemen,

In cooperation with the teaching staff, we have prepared this brief coursebook, containing basic information on the General Surgery course at the Department of General, Gastroenterological and Oncological Surgery. The Department, which is headed by undersigned, includes the Subdivision of Vascular Surgery Both Divisions are located in the main building of Wojewódzki Szpital Zespolony in Torun, Street: Św. Józefa 53-59.

The faculty members are:

Prof. dr hab. n. med. Marek Jackowski, specialist in General Surgery, Professor

Dr hab. n. med. Jacek Szeliga specialist in General Surgery , Associate Professor, responsible for student affairs

Dr n. med. Jacek Piątkowski, specialist in General Surgery, assistant

Lek. Wojciech Kupczyk, specialist in General Surgery, assistant

Lek. Łukasz Bereziak, resident, postgraduate research fellow

Lek. Łukasz Andracki, resident, postgraduate research fellow

Lek. Maciej Kozieł, resident, postgraduate research fellow

Lek. Katarzyna Machała, resident, postgraduate research fellow

We shall do our best to make the course interesting and effective. We must, however, keep in mind that this goal can only be achieved by both: our dedication as well as hard work on your part. We must also not forget that the patients you will encounter at our Departments are people who are unwell, suffering from pain and anxiety at a very stressful point in their lives. You should be grateful to them for any knowledge and skills you shall gain, and thus they deserve your highest respect.

Prof. dr hab. Marek Jackowski Surgery Teaching Coordinator e-mail: wlodarczyk@cm.umk.pl

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2. Rules of the Course

A. Preparation for class

- Each student must have a set of hospital clothes (white scrubs and/or skirt, lab coat, change of shoes. Students wearing casual clothes will not be allowed to participate in clinical activities.
- 2. Due to the specifics of work at a surgical ward, please limit the amount of jewelry worn, please wear your hair tied back and take care to have clean, clipped, unpainted nails.
- 3. Due to sanitary considerations, your set of hospital clothes should be clean and pressed during clinical activities. Students in contaminated / crumpled clothes will not be allowed on surgical wards.
- 4. Students are required to observe workplace safety rules.
- 5. Students are required to maintain patient physician confidentiality and to keep any medical data in strict confidence. It is unacceptable to discuss clinical cases in public places (e.g. cafeterias, hallways, elevators) for this could compromise patient doctor confidentiality.

B. Organization of the course

- 1. The schedule, along with division into study groups, is displayed 10 days before the scheduled start of the course. No personal changes in study groups are allowed after that time.
- 2. Clinical activities take place at times which will be made available to every group before the course commences. During that time, students are required to remain on the ward or in places designated by their teachers. Unauthorized leaving of the ward will be treated as an unexcused absence.
- 3. On the first day of the course, an organizational meeting will be held for the group. The rules and organization of the course will be presented, as will the grading principles, workplace safety rules and credit requirements. Each student will then be issued a scoring card, which they must turn in at the completion of the course in order to obtain credit. If you lose your scoring card, please notify your teacher.
- 4. The daily activities include:
 - morningrounds
 - bedside examination -completing case files
 - assisting surgical procedures as instructed by the teacher -using the intrahospital data network
 - practicing surgical skills discussion of selected cases
 - other activities designed by the teacher
 - seminars (Year 4, according to schedule) held in the seminar room; for organizational reasons, the exact hour of the seminars is subject to change, students will be notified at the earliest possible time.
 - 5. A Seminar is an active form of information exchange, involving student participation. Group leaders and teachers assign seminar topics which are then presented by the

- students. All of the students are required to **be acquainted with the seminar topic,** which will be evaluated by the teacher. Unprepared students will fail the seminar and have to retake it by the completion of the course.
- 6. Students are required to acquire practical skills, as listed in the Practical Skills Chart. Afternoon shifts and clinical activities are a perfect time to perfect your skills.
- 7. Each study groups is obliged to prepare a presentation on one of the **clinical problems**, in coordination with their teacher. This presentation is then given to the whole study group in the form of a seminar. If you are interested in another problem outside of the list provided by the faculty, you are welcome to explore it after coordinating with your teacher.
- 8. The seminar room is equipped with a computer with access to the Internet and hospital data network. The use of this computer is limited to scientific or didactic purposes, after approval from the teacher.
- 9. During the course, students are required to attend at least one **afternoon shift from 15.00 to 20:00**. After arriving for their afternoon shift, the students must report to the shift leader or surgeon on call. The students are then assigned tasks and duties by the shift leader, who confirms the completion of the shift on the scoring card. The maximum number of students reporting for an afternoon shift is **4 students for Years 4 and 3.** The afternoon shift schedule is created by the group leader at the beginning of the course.
- 10. All students are required to actively **participate in activities in the Surgical Suite**. On their scheduled days, students report at **8:00** to the Head of the Surgical Suite or a designated contact person, who assigns them to operating theaters and instructs them in their duties. After completion of the activities, the Head of the Surgical Suite gives the student credit on their Scoring Card. On the day spent at the Surgical Suite the student is not required to participate in clinical activities; they must, however, take part in seminars (Year 4 and 5). **It is strictly prohibited to bring unauthorized guests to the Surgical Suite.**
- 11. Each of the students must assist at least one surgical procedure, which is confirmed on the Scoring Card by the operating surgeon.
- 12. Tardiness or unexcused absences need to be made up by participating in an extra afternoon shift. An excused absence (only emergencies and /or sickness sick note from physician required) of more than 3 days requires retaking the course with another group or in special cases, approved by the Head of the Department credit can be gained in another form (details to be discussed in each individual case with the teacher responsible for student affairs).
- 13. An unexcused absence which has not been made up results in failing the course.
- 14. Any queries, organizational matters etc. should be reported to teachers responsible for student affairs or in case they are absent to their designated replacement.
- 15. Students are entitled to voice their concerns or lodge complaints directly with the Head of the Department.

3. Grading principles

The final grade is composed (averaged) of the following:

ENTRANCE EXAM, which takes place on the 1st or 2nd day of the course. It consists of a single

- choice test including the following topics:
- for 3rd year students anatomy and physiology of the abdomen
- for 4th year students aseptic and antiseptic technique, purulent infections in surgery, anatomy and physiology of the abdomen, alimentary tract and vascular system, and the topics covered in the 3rd year
- for 5th year students anatomy and physiology of the alimentary tract and vascular system, topics covered in the 3rd and 4th year.

Students who fail the entrance exam are required to take a retake test within 3 days. If they fail the retake (grade 2.0), the Head of the Chair or a designated teacher gives another oral retake, with two possible outcomes: "pass" (3.0) or "fail" (2.0). Failing the oral retake disqualifies the student from participating in the course, thus causing them to fail it. Final grade: 2,0.

ORAL EXAM heard by respective group teachers takes place on the last day of the course. The teachers evaluate the overall activity level of the student throughout the course. All of the seminars, clinical activities, surgical suite duties, assisting surgical procedures must be recorded on the Scoring Sheet. In cases of blatant disregard of the rules or inadequate student activity, the teacher may lower the final grade. In case of failing the oral exam (grade 2.0), the Head of the Chair or a designated teacher gives an oral retake, with two possible outcomes: "pass" (3.0) or "fail" (2.0). Failing the oral retake equals failing the whole course. Final grade: 2.0.

EXIT TEST – a single – choice test on the topics covered during the lectures and seminars is held after all of the groups have completed the lectures and seminars. This **final test** may only be attempted by students who have all of the required credits on their Scoring Sheet and who have gotten at least a 3.0 on their **entrance exam** and **oral exam**.

Test score thresholds:

Test result	grade
92 - 100%	5,0
84 - 91%	4,5
76 - 83%	4,0
68 - 75%	3,5
56 - 67%	3,0
0 - 55 %	2,0

Students who have failed (2.0) the ext test are entitled to a retake on a date set by the teacher responsible for student affairs. The form of this retake (oral vs written) will be determined by the Head of the Department. If failing the retake student has to take a **special commission exam**. Failing the commission exam equals failing the course. Final grade: 2.0.

For students who have passed the entrance test, oral exam and exit test, the final grade is the arithmetic mean of the grades awarded for these exams, rounded up to 3.0, 3.5, 4.0, 4.5, 5.0.

In case of failing the class, there will be no opportunity to attend the course again at a later date.

All of the Scoring Sheets must be collected by the Group Leader and returned to the supervising teacher no later than 14 days after completion of the course.

Losing one's Scoring Sheet after completion of the course necessitates obtaining credit for all of the seminars and retaking the Oral Exam.

The teacher responsible for students' affairs in the study year 2017/18 is dr hab. med. Jacek Szeliga, substituted by dr med. Jacek Piątkowski.

5. FORMS OF CLASSES

A. Lecture

The lecture remains the most traditional form of academic teaching; it is based on didactic content being presented to the audience, often with the aid of multimedia. We shall do our utmost to ensure that the lecturers are selected from amongst the most experienced members of the faculty, wherever possible independent- research fellows bearing the title of professor or assistant professor. Questions are encouraged after the completion of the lecture or, if the lecturer consents, during its course. The presentations used during the lectures will be made available on the Chair's webpage. Please bear in mind that, according to the syllabus, attendance is mandatory and your presence will be confirmed by signing an attendance roster. All unexcused absences as well as more than 3 absences excused by a sick note require the student to see the lecturer and pass a test on its topic.

A. Seminar

The seminar is a teaching method based on active participation on the part of the students, who explore a part of the topic of the seminar on their own and present their findings to the rest of the class, typically in the form of a multimedia presentation. The students also actively participate in the discussion of the seminar topics, which provides an opportunity for them to demonstrate their knowledge. The list of seminars, found in this Course Book, contains a list of problems to be discussed during each seminar. Ideally, a group of 2 to 3 students should prepare each seminar, according to a roster prepared before the course by the group leaders; all of the students, though, must be prepared to take an active part in the discussion. A seminar is based on a presentation, providing discussion pointers. The teacher in charge of the seminar acts as a moderator of the dispute and provides additional information to that presented by the students; he does not lead the discussion. Activity during the seminars is graded.

B. Tutorials (clinical activity)

The tutorials are the basic form of teaching and the best way to gain hand knowledge and clinical experience. The rules of participation are covered in the Rules section of this Coursebook. Please respect the fact that the patients you encounter during your course are ill people, suffering from anxiety caused by their condition and forced separation from their loved ones. It is for the patient to decide whether they want to take part in your learning process. Neither the patients nor their problems may be discussed in public places: the canteen, elevators or hallways. Patient-doctor confidentiality is of utmost importance. Violation of it is not only a breach of the Medical Code of Conduct, but also an offence. Students must keep this in mind.

6. The responsibilities of faculty staff members

Surgery Teaching Coordinator

- 1. Coordinates the curriculum with Heads of individual surgical departments 2. Coordinates the schedule with the Dean's office and Heads of Departments
- 3. Schedules and organizes the exit exams
- 4. Schedules and organizes the final exams
- 5. Supervises the consistency of the curricula taught in individual departments

Head of Chair

- 1. Maintains quality control of the teaching process in his/her Department
- 2. Periodically inspects the class during the course; evaluates the quality of teaching at least once per semester
- 3. Supervises data entry into the USOS system

Adjunct responsible for didactics

- 1. Informs the students of study group composition, schedules the tutorials and seminars in his / her Department,
- 2. Provides organizational and job safety training for each student group
- 3. Supervises the entrance exam
- 4. Coordinates any diversions from the schedule
- 5. Maintains records of tardiness, absences, sick notes etc.
- 6. Helps solve any student teacher conflicts

All Teachers - lectures

- 1. Prepares a PowerPoint framework for the lecture, which he makes available to the students
- 2. Checks attendance
- 3. Deposits the attendance roster with Mrs. M. Kosmal, Secretary of the Dept. of Hepatobiliary and General Surgery
- 4. In case of a planned absence, coordinates with the Dean's Office and the Class Representative as to a new date for the lecture
- 5. Is entitled to swap lecture dates with another teacher, provided he notifies the Class Representative via the Dean's Office.

All teachers - seminars and tutorials

- 1. Prepares a framework for the lecture, which he makes available to the students no later than two weeks before the scheduled seminar
- 2. Checks attendance
- 3. Deposits the attendance roster in the appropriate Secretary's office
- 4. conducts the exit oral exam and deposits the scoring sheet in the appropriate Secretary's office

Medical Faculty, 3rd year

1. SYLLABUS

Course name: Introduction to Surgery

Study year: 3 Faculty: medical

Form: lectures 45h tutorials 45h

Final credit: graded credit (grade point average from the following:

entry exam (single choice test); b)

<u>exit exam</u> (single choice test given after completion of all lectures);

<u>clinical activity score</u> (oral, grade awarded by individual teachers).

Scoring:

Test result	grade
92 - 100%	5,0
84 - 91%	4,5
76 - 83%	4,0
68 - 75%	3,5
56 - 67%	3,0
0 - 55%	2,0

Course goals:

- to promote and develop teamwork skills, to acquaint the student with patient documentation, to teach the student to efficiently peruse databases and other sources of modern surgical knowledge
- to acquaint the student with the rules of aseptic and antiseptic technique; to theoretically and practically familiarize the student with the work in the surgical suite
- 3) to convey knowledge on the basic medico-legal aspects of surgery; to acquaint the student with the history of surgery
- 4) to familiarize the student with the basics of surgical examination and to teach them to practically implement this skill
- 5) the student should gain an appreciation of the similarities and differences between surgery and other medical specialties.
- 6) to familiarize the students with the basic surgical instruments and skills
- 7) to acquaint the student with the basic problems of clinical surgery, including

By the completion of the course, the student should be able to:

- 1) handle themselves appropriately in the Surgical Suite and Operating Theater
- 2) follow the rules of aseptic and antiseptic technique
- 3) examine a surgical patient
- 4) properly prepare a patient for surgery
- 5) discern between various types of wounds and be able to perform basic wound closure
- 6) catheterize the urinary bladder

By the completion of this course, the student should have gained sufficient theoretical knowledge in the following areas:

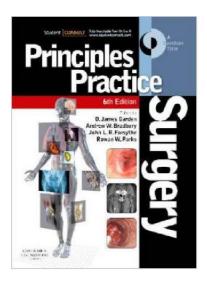
- 1) history of surgery
- 2) medico legal aspects of surgery
- 3) organization of a surgical suite
- 4) types of wounds and the mechanisms of wound healing
- 5) perioperative management
- 6) fluid and electrolyte balance in surgical patients
- 7) anesthesia and analgesia in surgery
- 8) surgical site infections and rules for antimicrobial therapy in a surgical ward
- 9) minor surgery
- 10) abdominal hernias
- 11) acute gastrointestinal hemorrhage
- 12) acute bowel obstruction
- 13) endoscopy
- 14) appendicitis, peritonitis and shock
- 15) thermal injuries
- 16) abdominal and thoracic trauma

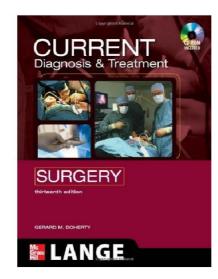
Lectures during the course

NC	o. Topic	Hours
1	Introduction to the surgery	1
2	History of surgery	2
3	Medico – legal aspects of surgery	2
4	Organization of a surgical suite. Principles of aseptic and antiseptic technique.	2
5	Examination of a surgical patient	3
6	Types of wounds. Mechanisms of wound healing.	
	Surgical instruments and materials	2
7	Preoperative and perioperative management	2
8	Fluid and electrolyte balance in the surgical patient	2
9	Analgesia and pain control in surgery	2
10	Hospital infections and the principles of rational antimicrobial therapy	2
11	Minor surgery. Purulent infections	2
12	The acute abdomen, peritonitis and septic shock	2
13	Appendicitis	2
14	Bowel obstruction	2

15 Gastrointestinal bleeding	2
16 Abdominal hernias	2
17 Burns and thermal injuries	2
18 Abdominal trauma	2
19 Thoracic trauma	2
20 Diagnostic and curative endoscopy in surgery	2
21 Laparoscopic surgery	2
22 Vascular and peritoneal access in end-stage renal disease	2

Recommended reading:





- 1. Principles Practice. D. James Garden, Andrew W. Bradbury
- 2. Current diagnosis and treatment. Surgery. Gerard M. Doherty.

2. LECTURES "Introduction to surgery", III year, Medical Faculty, year 2017/2018 Place: Lecture room 8, M. Curie Skłodowskiej Curie 9 Street

No.	Lecture topic	Duration	Lecturer	date	time
1	Introduction to the surgery	1	Prof. dr hab. Zbigniew Włodarczyk		
2	History of surgery.	2	Dr n. med. Jakub Szmytkowski		
3	Medico – legal aspects of surgery.	2	Prof. dr hab. n. med. Zbigniew Włodarczyk		
4	Organization of a surgical suite. Principles of aseptic and antiseptic technique.	2	Dr hab. n. med. Arkadiusz Migdalski		
5	Examination of a surgical patient.	3	Prof. dr hab. n. med. Arkadiusz Jawień		
6	Types of wounds. Mechanisms of wound healing. Surgical instruments and materials.	2	Prof. dr hab. n. med. Arkadiusz Jawień		
7	Preoperative and perioperative management	2	Dr hab. n. med. Wojciech Szczęsny		
8	Fluid and electrolyte balance in the surgical patient	2	Dr n. med. Jacek Szopiński		
9	Analgesia and pain control in surgery	2	Dr hab. n. med. Wojciech Szczęsny		
10	Hospital infections and the principles of rational antimicrobial therapy	2	Dr n. med. Adrian Reśliński		
11	Minor surgery. Purulent infections	2	Dr n. med. Włodzimierz Gniłka		
12	The acute abdomen, peritonitis and septic shock.	2	Dr hab. n. med. Jacek Szeliga		
13	Appendicitis	2	Dr hab. n. med. Maciej Słupski		
14	Bowel obstruction	2	Prof. dr hab. n. med. Marek Jackowski		
15	Gastrointestinal bleeding	2	Dr n. med. Włodzimierz Gniłka		
16	Abdominal hernias	2	Dr hab. n. med.		

			Jacek Szeliga	
17	Burns and thermal injuries	2	Dr n. med. Jakub Szmytkowski	
18	Abdominal trauma	2	Prof. dr hab. n. med. Zbigniew Włodarczyk	
19	Thoracic trauma	2	Dr n. med. Jacek Piątkowski	
20	Diagnostic and curative endoscopy in surgery	2	Dr n. med. Grzegorz Jarczyk	
21	Laparoscopic surgery	2	Prof. dr hab. n. med. Marek Jackowski	
22	Vascular and peritoneal access in end- stage renal disease	2	Prof. dr hab. n. med. Zbigniew Włodarczyk	
23	Final exam	2	Dr n. med. Jacek Szopiński	

3. PRACTICAL SKILLS CHART "Introduction to surgery", III year, Medical Faculty, year 2017/2018

Year III, group:			
Academic year: 2017/18			
Practical skill	Date when confirmed	Confirmed by	remarks
Surgical hands scrubbing			
Examination of the surgical patient			
Behaviour in the operating theatre			
Wound management			
Removal of the surgical sutures and drains			
Insertion of the gastric tube			
Insertion of the bladder catheter			
Rectal examination			
Enema			
Peripherial vein punction			
Measurement of the arterial pressure			

Medical faculty, 4th year

1. SYLLABUS

Subject: Endocrine Surgery, Gastrointestinal Tract Surgery

Study year: 4 Faculty: medical

Form: lectures 15h tutorials: 45 h seminars : 30 h

Final credit: graded credit (grade point average from the following:

entry exam (single choice test);

<u>exit exam</u> (single choice test given after completion of all lectures); <u>clinical</u> activity score (oral, grade awarded by individual teachers).

Test score thresholds:

Test result	grade
>90%	5,0
<85≤90%	4,5
<80≤85%	4,0
<70≤80%	3,5
<56≤70%	3,0
≤56%	2,0

Course goals:

- 1) to promote and develop teamwork skills, to acquaint the student with patient documentation, to teach the student to efficiently peruse databases and other sources of modern surgical knowledge
- 2) to review and reaffirm the skills acquired during the Introduction to Surgery Course during Year 3
- 3) to convey knowledge on the diagnosis and treatment of the most common surgical diseases of the gastrointestinal tract, endocrine system and spleen
- 4) to equip the student with the basic set of surgical skills useful in day-to-day practice, in accordance with the topics of seminars and lectures
- 5) to acquaint the student with the possible future developments in clinical surgery
- 6) to familiarize the student with the characteristics of the surgical patient, to teach them to provide adequate patient care in the perioperative period; to help the student understand the dynamics of various surgical ailments in order to provide them with sufficient knowledge to be able to successfully monitor the patients' changing condition and to react timely and accordingly
- 7) the course includes participation in at least one afternoon on call at the surgical ward

By the completion of this course, the student should have gained sufficient theoretical knowledge in the following areas:

- 1. Diagnosis and treatment of the surgical diseases of the esophagus
- 2. Diagnosis and treatment of the surgical diseases of the stomach and duodenum
- 3. Diagnosis and treatment of the surgical diseases of the intestines
- 4. Diagnosis and treatment of the surgical diseases of the liver and biliary tree
- 5. Diagnosis and treatment of the surgical diseases of the pancreas
- 6. Diagnosis and treatment of the surgical diseases of the thyroid, parathyroid and adrenal glands
- 7. Diagnosis and treatment of portal hypertension
- 8. Diagnosis and treatment of abdominal trauma
- 9. Basic coloproctological problems
- 10. Surgical diseases of the spleen Epidemiology and consequences of obesity, staging for surgical treatment and the types of bariatric procedures
- 11. Basic principles of surgical oncology
- 12. Various types of nutritional treatment, including its benefits and pitfalls
- 13. The use of ultrasound in surgery

By the completion of this course, the student should have gained sufficient practical knowledge in the following areas:

- 1. Nutritional status assessment
- 2. Drug administration and perioperative patient care
- 3. Planning diagnostics and treatment in surgical diseases of the gastrointestinal tract and endocrine glands
- 4. Basics of administrative work (patient case file, daily write-ups)
- 5. Nasogastric and Sengstaken-Blakemore tube placement
- 6. Urinary bladder catheterization
- 7. Removal of sutures and drains

Lectures during the course

No.	Topic	Hours
1	Surgery of the thyroid and parathyroid gland	2
2	Bariatric surgery	2
3	Clinical nutrition part I – introduction	2
4	Clinical nutrition part II – nutrition	1
5	Principles of surgical oncology	2
6	Acute pancreatitis	2
7	New trends in surgery (SILS, NOTES, robotic surgery)	2
8	Introduction to the transplantation surgery	2

Seminars during the course:

No.	Topic	Hours
1	Ultrasound in surgery	2
2	Surgical conditions of the esophagus. Diaphragmatic hernias.	2
3	Surgery of the stomach and duodenum	3
4	Surgical diseases of the bowels	3
5	Hepatobiliary surgery	3

6	Surgery of the biliary tree	3	
7	Diseases of the pancreas		3
8	Portal hypertension		2
9	Basic endocrine surgery		2
10	Basic coloproctology		2
11	Nutrition in surgery		2
12	Abdominal trauma		2
13	Exit seminar		1

2. LECTURES: "Endocrine Surgery, Gastrointestinal Tract Surgery", IV year, Medical Faculty, year 2017/2018

Places: Lectures 1,7 and 8: Lecture room 30, M. Curie Skłodowskiej 9 Street Lectures 2,3,4,5,6: Lecture room 9, M. Curie Skłodowskiej 9 Street

No.	Lecture topic	Duration	Lecturer	Date	Time
1	Surgery of the thyroid and	2	Dr n. med.		
	parathyroid gland		Jakub Szmytkowski		
2	Bariatric surgery	2	Prof. dr hab. n. med.		
			Stanisław Dąbrowiecki		
3	Clinical nutrition part I –	2	Dr n. med.		
	introduction		Jacek Szopiński		
4	Clinical nutrition part II –	1	Dr n. med.		
	nutrition		Jacek Szopiński		
5	Principles of surgical	2	Prof. dr hab. n. med.		
	oncology		Wojciech Zegarski		
6	Acute pancreatitis	2	Dr hab. n. med.		
			Maciej Słupski		
	New trends in surgery		Prof. dr hab. n. med.		
7	(SILS, NOTES, robotic surgery)	2	Marek Jackowski		
8	Introduction to the	2	Prof. dr hab. n. med.		
	transplantation surgery		Zbigniew Włodarczyk		
9	Final test	2	Dr n. med.		
			Jacek Szopiński		

3. SEMINARS "Endocrine Surgery, Gastrointestinal Tract Surgery", IV year Medical Faculty, year 2017/2018

Place: Seminar Room, Dpt of General and Hepatic Surgery, M. Curie Skłodowskiej 9

No.	Topic	Hours	Lecturer
1	Ultrasound in surgery	2	M. Kozieł
			6.11
2	Surgical conditions of the esophagus.	2	J. Piątkowski
	Diaphragmatic hernias.		9.11
3	Surgery of the stomach and duodenum	3	J. Szeliga
			13.11.
4	Surgical diseases of the bowels	3	W. Kupczyk
			14.11
5	Hepatobiliary surgery –pt. I	3	Ł. Bereziak
			15.11
6	Diseases of the pancreas	3	J. Szeliga
			16.11
7	Portal hypertension	2	J. Piątkowski
			16.11
8	Basic endocrine surgery	2	Ł. Andracki
			17.11
9	Basic coloproctology	2	M. Kozieł
			20.11
10	Nutrition in surgery	2	W. Kupczyk
			14.11
11	Abdominal trauma	2	Ł. Andracki
			15.11
	Exit seminar	1	Respective teachers

4. SEMINARS FRAMEWORKS "Endocrine Surgery, Gastrointestinal Tract Surgery", IV year Medical Faculty, year 2017/2018

Seminar No. 1. Ultrasound in surgery

- 1. Physics of ultrasound (US) imaging
- 2. History of US imaging
- 3. Types of transducers
- 4. Types of US presentations
- 5. The use of contrast media in US imaging
- 6. Doppler ultrasound
- 7. Examples of US images
- 8. Intraoperative US
- 9. US in fields other than surgery

Seminar No. 2. Surgical conditions of the esophagus. Diaphragmatic hernias

- 1. Anatomy and physiology of the esophagus
- 2. Disorders of esophageal motility
- 3. Gastroesophageal reflux disease
- 4. Barret's esophagus
- 5. Esophageal diverticula
- 6. Esophageal neoplasms
- 7. Other diseases of the esophagus
- 8. Hiatal hernia
- 7. Congenital diaphragmatic hernias

Seminar No. 3. Surgery of the stomach and duodenum

- 1. Anatomy and histology of the stomach and duodenum
- 2. Stomach function
- 3. Pathomorphology and pathophysiology of the stomach
- 4. Diagnostic options in diseases of the stomach and duodenum
- 5. Peptic ulcer
- 6. Stomach cancer
- 7. Other neoplasms of the stomach
- 8. Gastric polyps
- 9. Duodenal neoplasms

Seminar No. 4. Surgical conditions of the intestines

- 1. Anatomy and physiology of the small intestine
- 2. Diverticulosis of the small intestine
- 3. Meckel's diverticulum
- 4. Tumors of the small intestine
- 5. Short bowel syndrome
- 6. Anatomy and physiology of the large intestine
- 7. Nonspecific inflammations of the large intestine
- 8. Diverticulosis of the large intestine
- 9. Constipation as a surgical problem
- 10. Polyps and polyposis syndromes of the colon and rectum
- 11. Colorectal cancer

- 12. Mechanical bowel obstruction
- 13. Functional bowel obstruction
- 14. Treatment of bowel obstruction

Seminar No. 5. Hepatobiliary surgery - Liver

- 1. Surgical anatomy and physiology of the liver
- 2. Diagnostic options in liver disease
- 3. Benign lesions
- 4. Primary malignant neoplasms
- 5. Secondary malignant neoplasms
- 6. Liver cysts
- 7. Liver abscesses
- 8. Liver transplantation

Seminar No.6 Hepatobiliary surgery – Biliary tract

- 1. Anatomy and physiology of the gallbladder and biliary tree
- 2. Cholelithiasis
- 3. Gallbladder polyps
- 4. Gallbladder cancer
- 5. Cholangiocarcinoma
- 6. Non neoplastic conditions of the biliary tree

Seminar No 7. Diseases of the pancreas

- 1. Anatomy of the pancreas
- 2. Acute pancreatitis
- 3. Chronic pancreatitis
- 4. Pancreatic neoplasms

Seminar No 8. Portal hypertension

- 1. Anatomic principles of portal circulation
- 2. Pathophysiology of portal hypertension
- 3. Diagnostic options
- 4. Bleeding from esophageal varices
- 5. Portal gastropathy
- 6. Budd-Chiari syndrome
- 7. Ascites

Seminar No 9. Principles of endocrine surgery

- 1. Neutral goiter
- 2. Hyper and- hypothyreotic goiter
- 3. Thyroid neoplasms
- 4. Thyroiditis
- 5. Surgical management of thyroid disease
- 6. Postoperative complications
- 7. Hyperparathyroidism
- 8. Hypoparathyroidism
- 9. Endocrine tumors of the pancreas
- 10. Anatomy and physiology of the adrenal glands

- 11. Tumors of the adrenal glands
 - 11.1. Cushing's tumor
 - 11.2. Conn's syndrome
 - 11.3. Tumors of the adrenal medulla
 - 11.4. Adrenal incidentaloma
 - 12. Surgical management of adrenal gland tumors
 - 12.1. Open and laparoscopic adrenalectomy
 - 12.2. Postoperative complications
 - 13. Multiple endocrine neoplasm (MEN) sydromes
 - 13.1. MEN I (Wermer's syndrome)
 - 13.2. MEN II (Sipple's syndrome)
 - 13.3. Mixed syndromes
 - 13.4. Treatment

Seminar No. 10. Principles of colorectal surgery

- 1. Anatomy and physiology of the large intestine
- 2. Signs and symptoms of colorectal diseases
- 3. Imaging
- 4. Inflammatory diseases of the large intestine
- 5. Diverticulosis
- 6. Hirschprung's disease
- 7. Hemorrhoids
- 8. Anal fissure
- 9. Pilonidal cyst
- 10. Fistula in ano, perianal abscess
- 11. Fistulae of the colon and rectum
- 12. Stool incontinence
- 13. Pruritus ani
- 14. Rectal/ anal prolapse
- 15. Infectious diseases of the perianal region
- 16. Colorectal polyps (including hereditary polyposis syndromes)
- 17. Colorectal malignancy (colon, rectum, anus)
- 18. Principles of colorectal surgery

Seminar No. 11. Nutritional therapy in surgery

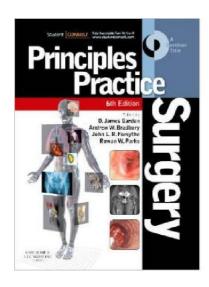
- 1. Prevalence of malnutrition
- 2. Causes of malnutrition
- 3. Types of starvation
- 4. Types of malnutrition
- 5. Consequences of malnutrition
- 6. Diagnosis nutritional state assessment
- 7. Indications for nutritional therapy
- 8. Evaluating nutritional needs
- 9. Choosing type of nutritional support
- 10. Planning of nutritional therapy
- 11. Special nutritional requirements in various conditions
- 12. Intraoral nutritional supplementation
- 13. Intraintestinal feeding

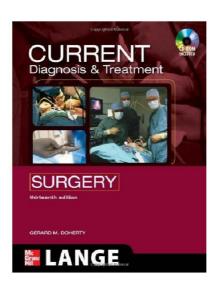
14. Parenteral nutrition

Seminar No. 12. Abdominal trauma

- 1. First aid
- 2. Imaging
- 3. Diagnostic surgery
- 4. Polytrauma
- 5. Isolated abdominal trauma
 - 5.1. Liver injury
 - 5.2. Spleen injury
 - 5.3. Pancreas injury
 - 5.4. Stomach injury
 - 5.5. Duodenum injury
 - 5.6. Gut injury
- 6. Types and mechanisms of trauma
 - 6.1. Blunt injury
 - 6.2. Penetrating injury
 - 6.3. Gunshot injury

Recommended reading:





- 1. Principles Practice. D. James Garden, Andrew W. Bradbury
- 2. Current diagnosis and treatment. Surgery. Gerard M. Doherty

5. PRACTIAL SKILLS CHART "Endocrine Surgery, Gastrointestinal Tract Surgery", IV year Medical Faculty, year 2017/2018

Practical skill	Date when	Confirmed by	remarks
	confirmed		
First aid, anti – shock			
treatment			
Surgical scrubbing			
Wound care wound local			
anesthesia.			
Wound hemostasis, wound			
debridement,. Abscess			
incision and drainage Wound			
suturing and dressing			
Abscess incision and			
drainage			
Urinary catheterization			
Digital rectal examination			
Felon incision and treatment			
Finger or toenail removal			
Cannulation of large veins			
Examination of peripheral			
pulse, auscultation for			
vascular murmurs			
Clinical examination of the			
venous system			
Gastric tube placement			
Sengstaken-Blakemore			
tube placement			
Diagnostic peritoneal lavage			
Diagnosis of acute abdominal			
conditions			
Usage of continuous wave			
("blind") Doppler			
Complete evaluation of a			
patient, including patient			
history, physical			
examination, differential			
diagnosis and treatment plan			