

# **Surgery II (SUR-421)**

## **STUDY GUIDE**



**Upper Egypt Faculties of Medicine  
Sohag University**

**Prepared by**

**Departments of:**

**-Anesthesia,ICU and pain management**

**2020-2021**

**Contact Information of Staff Responsible for Block  
Surg-II (SUR-421)**

**Block SURGERY II (SUR-421)**

**Coordinator**

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<b>Staff Participated from the Department</b>
All staff members of Anesthesia,ICU and pain management department

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## Basic Information about the Block

- **Program on which the course is given:** Bachelor of Medicine and Surgery (M.B. B.Ch.).
- **Elements (major or minor) of the program:**  
Undergraduate
- **Department offering the course:**  
Anesthesia, ICU and pain management

**Academic. year/level:**

4th year, six semester .

**Date of specification approval:**

2020 -2021

⊙ **Title: Surgery II**

⊙ **Code:** SUR - 421

⊙ **Credit points:** 4

⊙ **Lectures:** 18 hours

⊙ **Practicals :** 18 hours

⊙ **Case based discussions :**18 hours

⊙ **Student learning activities:**

Portfolio : ( 29)

Formative assessment ( 6)

### Block Map

The total hours of the final written exam	Total marks	Days/weeks	Points	Code	Responsible department	Block الوحدة التعليمية	Year
1	80	2hour/week for 28 week	2	SUR-421	Anesthesia,ICU and pain management	SurgeryII Anesthesia,pain management,intensive care,fluids and electrolytes	4th year

**NARS competencies covered by the block  
Clinical Rotations (Blocks)/ Competencies**

- The competency areas of the NARS- Anesthesia
- competency framework are:
  - 1- The graduate as a health care provider.
  - 2- The graduate as a health promoter.
  - 3- The graduate as a professional.
  - 4- The graduate as a scholar and scientist.
  - 5- The graduate as a member of the health team and a part of the health care system.
  - 6- The graduate as a lifelong learner and researcher.

**Upon completion of this course students should be able to:**

NARS	Rotation	ILO Type
1.1. Take and record a structured, patient centered history.	Surgery II	S
1.2. Adopt an empathic and holistic approach to the patients and their problems.		S
1.3. Assess the mental state of the patient.		S
1.4. Perform appropriately timed full physical examination of patients appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.		S

1.5. Prioritize issues to be addressed in a patient encounter.		K & S
1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.		K& P
1.7. Recognize and respond to the complexity, uncertainty and ambiguity inherent in medical practice.		G & S
1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.		K
1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).		G & S

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1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.		K&S
1.11. Perform diagnostic and intervention procedures <sup>2</sup> in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.		S
1.12. Adopt strategies and apply measures that promote patient safety.		S
1.13. Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate, using Evidence Based Medicine in management decisions.		K&S
1.14. Respect patients' rights and involve them and /or their families/careers in management decisions.		S & G
1.15. Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.		K&S
1.16. Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.		K&S
1.17. Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.		K&S
2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.		G & S
2.9 Adopt suitable measures for infection control.		K&S

3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.		G
3.2. Adhere to the professional standards and laws governing the practice, and abide by the national code of ethics issued by the Egyptian Medical Syndicate.		G & S
3.3. Respect the different cultural beliefs and values in the community they serve.		S
3.4. Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural, ethnic backgrounds, or their disabilities.		S & G

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3.5. Ensure confidentiality and privacy of patients' information.		G
3.7. Recognize and manage conflicts of interest.		G
3.8. Refer patients to appropriate health facility at the appropriate stage.		K,G,S
3.9. Identify and report any unprofessional and unethical behaviors or physical or mental conditions related to himself, colleagues or any other person that might jeopardize patients' safety.		G
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).		K
4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.		K
4.7 Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.		K
5.1 Recognize the important role played by other health care professions in patients' management.		S & G
5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.		S & G
5.3 Implement strategies to promote understanding,		S & G
manage differences, and resolve conflicts in a manner that supports collaborative work.		
5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.		S & G
5.5 Communicate effectively using a written health record, electronic medical record, or other digital technology.		S & G
5.6 Evaluate his/her work and that of others using constructive feedback.		G



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5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.		S & G
5.9 Use health informatics to improve the quality of patient care.		G
5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.		G
5.12 Demonstrate accountability to patients, society, and the profession.		G
6.1 Regularly reflect on and assess his/her performance using various performance indicators and information sources.		G
6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice		G
6.3 Identify opportunities and use various resources for learning.		G
6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.		K- G
6.5 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.		K- G
6.6 Effectively manage learning time and resources and set priorities.		G
6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.		G

**Professional Information**

## Block Aims

### Overall Aims

1. This block aims to provide students with fundamental knowledge and clinical skills that enable him/her to detect, manage and/or refer common and important **respiratory,airway and hemodynamic compromise in the theatre.**
2. By the end of the blocks, the students will be able to take informative history, anesthetic consent,define anesthetic equipments and drugs,perioperative monitoring.
3. By the end of the block,the student should be familiar with the different parts of the modern anesthesia machine
4. By the end of the block,the student should know the principles of general anesthesia
5. By the end of the block,the student should know the basics of regional anesthesia
6. By the end of the blocks,the students will be able to perform some skills as intravenous cannulation,airway management including endotracheal intubation and laryngeal mask airway insertion .
7. By the end of the blocks,the student should be able to relief postoperative pain
8. by the end of the block,the student should be able to perform efficient basic life support
9. By the end of the blocks, the students will be able to counsel patients and their families about the selection of a suitable and appropriate anesthetic.
10. By the end of the block the student should know the intraoperative anesthetic risks

11. By the end of the block, the student should know all the possible postoperative complications and how to deal with them

## **Intended Learning Outcomes of the Block:**

### **K- Knowledge and understanding**

**Upon completion of the course students should be able to:**

- K1- Define anesthesia and how to conduct it safely.
- K2- Select the ideal anesthetic for a particular patient.
- K3- Define anesthetic complications and how to manage them.
- K4- Select cost effective anesthetic technique.
- K5- Integrate the results of history, physical examination and laboratory test findings into a suitable anesthetic technique.
- K6- Describe the informed consent
- K7- Manage postoperative pain, nausea and vomiting properly.
- K8- Identify the support of the airway properly
- K9- Recognize cardiac massage
- K10- Identify patent airway
- K11- Apply Ventilation during cardiac arrest
- K12- Apply oxygen therapy devices
- K15- Select the ideal venous approach and the significance of arterial cannulation and suitable fluid therapy
- K16- Apply Standard intraoperative monitoring

### **S- Clinical skills**

***By the end of the course, students should be able to:***

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S1- Obtain and record informative history and consent.

S2-Examine the patients systematically appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.

S3- Design and /or present a structured, patient centered history and an appropriately timed full physical examination of patients.

S4-How to manipulate the neck and mandible to open the airway.

S4- Show how to use peripheral venous cannula, urethral catheter; performing and interpreting ECG, endotracheal tube, laryngeal mask and ryles tube insertion.

S5- Apply measures that promote patient safety.

S6. Apply suitable measures for infection control when dealing with the patients and instruments.

S7- Conduct patient-focused care while working with health care professionals.

S8-Select the suitable oxygen device therapy

S9-Perform efficient basic life support

**G- Generic and transferable skills**

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G1- Perform practice-based improvement activities using portfolio.

G2- Practice effectively using a written health record, electronic medical record, or other digital technology

G3-Display effective communication with patients, their families and community through proper verbal and written means, respecting their beliefs and level of education.

G4- Display respect, compassion, and integrity; a responsiveness to the needs of patients and society.

G5- Display a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent.

G6- Work effectively with others as a member of team work by acting in small group.

G7- Display adequate cooperation with his/her colleagues

G8- Arrange the efforts required to accomplish the tasks in specified time.

G9- Verify the use of sources of biomedical information to remain current with advances in knowledge and practice.

G10- Share in the work efficiently in responsible manner keeping the Instruments and Equipment of the theatre intact and clean.

G11-Adhere to the basic ethical and medicolegal principles that should be applied in practice.

G12- Describe his/her work and that of others using constructive feedback.

G13-Present regular reflection on and assess his/her performance using various performance indicators and information sources.

G14- Initiate a personal learning plan to enhance professional practice

G15- Identify opportunities and use various resources for learning.

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G16- Integrate in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.

G17- Organize learning time and resources and set priorities

G18- Display accountability to patients, society, and the profession.

### Structure of the block

<i>Week</i>	<b>Lect ures (NUMBER)</b>	<b>Practical (NUMBER)</b>	<b>PORTFLIO TASKS (NUMBER)</b>	<b>CASE BASED Discussions (NUMBER)</b>	<b>Formative Assessment (NUMBER)</b>	<b>Revisions and Exams</b>	<b>Total</b>
1st	1	0	1	1			3
2nd	1	0	1	1			3
3rd	1	0	1	1			3
4th	1	1	1	0	1		4
5th	1	0	1	1			3

6th	1	1	1	0			3
7th	1	1	1	0			3
8th	1	1	1	0	1		4
9th	0	1	1	0		1	3
10th	0	1	1	0		1	3
11th	0	1	2	1			4
12th	0	1	2	1	1		5
13th	0	1	2	1			4
14th	0	1	2	1			4
15th	1	1	0	0		1	3
16th	1	1	1	0	1		4
17st	1	1	1	0			3
18th	1	1	1	0			3
19th	1	1	1	0			3
20	1	0	1	1	1		4
21	0	0	1	1		1	3
22th	0	0	0	1		1	2
23th	1	1	2	1			5
24th	0	0	2	1	1		4
25	0	0	1	2			3
26	0	0	0	0		2	2
27	0	0	0	0		2	2
28	0	0	0	0		2	2

## Learning Methods

- 1- Lectures for knowledge outcomes.
- 2- Practical (Bedside/skill lab) sessions to gain clinical skills
- 3- 3-Task based log. (may use inscion academy/clinical key cases)
- 4- Group discussions( Case – based) .

## Methods of Student Assessment

### 1. Formative:

This is used to monitor student's learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. It's given once weekly and the answers are presented and discussed immediately with you after the assessment.

### 2. Summative

It is used to evaluate student's achievements at the end of an instructional unit. The grades tell whether the student achieved the learning goal or not.

**The student's performance will be assessed according to the following:**

Assessment task	Type of assessment	Proportion of total assessment	
		%	Marks
End block exam	MCQ (only correct answer)	20%	16 marks

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<b>Portfolio</b>	May include inscion academy certificates	10%	8 marks
<b>Final written exam</b>	MCQ (only correct answer)	40%	32 marks
<b>OSCE Final</b>	Typical OSCE stations using standardized, real or skill lab encounters	30%	24 marks
<b>Total</b>		<b>100%</b>	<b>80</b>

### Block evaluation

- Students' results
- Students' feedback

## Block Contents

### Lecture Topics and Their Intended Learning Outcomes

### Choose one source for each topic

No.	Subcomptancies K	Lectures Titles And specified reference	Week No.	Contact Hours
1	K6	<b>Consent</b> oxford handbook of Clinical Medicine. (10 edition , P:568, 569	1 <sup>st</sup>	1
2	K.1,K2	<b>Preoperative care</b> Oxford handbook of Clinical Medicine (10 edition P: 566,567	2 <sup>nd</sup>	1
3	K1,K2	<b>Preoperative care</b> Oxford handbook of Clinical Medicine (10 edition P: 566,567	3 <sup>rd</sup>	1



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4	K7	<b>Airway management</b> Amboss	4 <sup>th</sup>	1
5	K4,K5	<b>General anesthesia</b> Oxford handbook of Clinical Medicine (10 edition P:572,573	5 <sup>th</sup>	1
6	K4,K5	<b>Regional anesthesia</b> Oxford handbook of Clinical Medicine (10 edition P:573	6 <sup>th</sup>	1
7	K14	<b>Intra-operative monitoring</b>	7 <sup>th</sup>	1
8	K9,K10,K11	<b>Basic life support</b>	8 <sup>th</sup>	1
9		<b>Revision</b>	9 <sup>th</sup>	1
10	K2,K3,K4	<b>Intraoperative anesthetic risk</b> Oxford handbook of Clinical Medicine (10 edition P:572	15 <sup>th</sup>	1

11	K2,K3,K4	<b>Postoperative complications</b> Oxford handbook of Clinical Medicine (10 edition P: (576)	16 <sup>th</sup>	1
12	K2,K3,K4	<b>Postoperative complications</b> Oxford handbook of Clinical Medicine (10 edition P:576	17 <sup>th</sup>	1
13	K15	<b>Fluid therapy</b>	18 <sup>th</sup>	1
14	K12	<b>Oxygen therapy</b> Amboss	19 <sup>th</sup>	1
15	K7	<b>Postoperative pain therapy</b> Oxford handbook of Clinical Medicine (10 edition P:574)	20 <sup>th</sup>	1
16		<b>Revision</b>	21 <sup>st</sup>	1

17		<b>Revision</b>	22 <sup>nd</sup>	1
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**Skills and tasks and Their Intended Learning Outcomes**

**In addition to real patients and skills stated in the NARS should be learned either in practical or group discussion**

No.	subcomptancies S and G	Bedside/skill lab sessions and titles	Weeks	Hours
1.	S1 G1-G18	Consent, ake history:previous anesthetic exposue,drugs and symptoms of different diseases relevant to anesthesia	4 <sup>th</sup>	1
2.	S2,S3, G1- G18	Examination before induction of anesthesia	6 <sup>th</sup>	1
3.	S5,S6,S7 G1-G18	Different manevres for airway opening	7 <sup>th</sup>	1
4.	S5,S6,S7 G1-G18	Endotracheal intubation	8 <sup>th</sup>	1
5.	S5,S6,S7 G1-G18	Laryngeal mask airway insertion	9 <sup>th</sup>	1
6.	S5,S6,S7 G1-G18	Flexible fiberoptic laryngoscopy	10 <sup>th</sup>	1
7.	S5,S6,S7 G1- G18	Basic life support	11 <sup>th</sup>	1
8.	S5,S6,S7 G1-G18	Assessment of recovery from general anesthesia	12 <sup>th</sup>	1
	S5,S6,S7	Management of	13 <sup>th</sup>	

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9.	G1-G18	intraoperative hypotension		1
10.	S5,S6,S7 G1-G18	Discharge from post anesthesia care unit	14 <sup>th</sup>	1

11.		Revision	15 <sup>th</sup>	1
12.	S5,S6,S7 G1-G18	Management of delayed recovery	16 <sup>th</sup>	1
13.	S5,S6,S7 G1-G18	Oxygen therapy for a hypoxemic patient in the ICU	17 <sup>th</sup>	1
14.	S5,S6,S7 G1-G18	Intravenous cannulation and fluids	18 <sup>th</sup>	1
15.	S5,S6,S7 G1-G18	Assesment of postoperarive pain	19 <sup>h</sup>	1
16.	S5,S6,S7 G1-G18	Postoperative pain management	23 <sup>th</sup>	1
17.		Revision	28	2
		<b>Total</b>		<b>18</b>

**Self Directed Learning and Group Discussion(SDL &GD)(cases scenario with 10 MCQs)**

No.	Subcomptancies K and G	Title of cases and reference	Weeks	Hours
1.	K5 G1-G18	Case 1Preoperative history Handout	1 <sup>st</sup>	1
2.	K5 G1-G18	Case 2 Preoperative examination Handout	2 <sup>nd</sup>	1
4	K5 G1-G18	Case 3Premedication of a surgical patient	3 <sup>rd</sup>	1

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		Handout		
5	K1-K5 G1-G18	Case 4 Evaluation of the airway Handout	5th	1
7	K1-K6 G1-G18	Revision	10th	1
8	K1-K5 G1-G18	Case 5 Induction and maintenance of general anesthesia Handout	11th	1
9	K1-K5 G1-G18	Case 6 Spinal anesthesia Handout	12th	1
10	K1-K5 G1-G18	Case 7 Local anesthesia overdose Handout	13th	1
11	K9-K11 G1-G18	Case 8 Cardiac arrest Handout	14th	1
12	K1-K5, K14 G1-G18	Case 9 Haemodynamic monitoring and management of hemodynamic instability	20th	1
13	K1-K5, K14 G1-G18	Case 10 Intraoperative hypothermia Handout	21 <sup>nd</sup>	1
14	K1-K5, K14 G1-G18	Case 11 Aspiration Handout	23 <sup>rd</sup>	1
15	K1-K5, K7 G1-G18	Case 12 Delayed recovery from general anesthesia Handout Case 13 Postoperative pain Handout	24th	2
16	K1-K5, K14 G1-G18	Case 14 Respiratory failure in the recovery room Handout	25th	1
17	K1-K5, K14 G1-G18	Case 15 Central anticholinergic syndrome Handout	25th	1
		Revision	26th	2

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18				
	Total			18

### Formative assessment

No.	Quiz Case Based MCQs	weeks	Hours
1.	Formative 1	Week 4	2
2.	Formative	Week 8	2
3.	Formative 3	Week12	2
4.	Formative 4	Week 16	2
5.	Formative 5	Week 20	2
6.	Formative 6	Week 24	2

## Blueprint of the block

No.	List of Topics (lectures/cases)	ILOs Subcomptancies	Weight* from	Total marks	End of the block	Final written exam
1.	Pre operative assessment & consent	K6	6.25%	3 marks	1	2
2.	Pre Anesthetic Medications	K.1,K2	6.25%	3 marks	1	2
3.	General Anesthetic	K1,K2	6.25%	3 marks	1	2
4.	Inhalational Anesthetic	K7	6.25%	3 marks	1	2
5.	Regonal anesthesia	K4,K5	6.25%	3 marks	1	2
6.	Local Anesthetic toxicity	K4,K5	6.25%	3 marks	1	2
7.	Skeletal muscle relaxant	K14	6.25%	3 marks	1	2
8.	Intro operative monitoring	K9,K10,K 11	6.25%	3 marks	1	2
9.	Intraoperative anesthetic risk	K2,K3,K4	6.25%	3 marks	1	2
10.	Postoperative complications	K2,K3,K4	6.25%	3 marks	1	2
11.	Oxygen therapy	K2,K3,K4	6.25%	3 marks	1	2
12.	Cardio pulmorary resusatation	K15	6.25%	3 marks	1	2
13.	Fluid therapy					
14.	Postoperative pain managment					
15.	Respiratory failture in recovery room	K12	6.25%	3 marks	1	2
16.	Airway managment	K7	6.25%	3 marks	1	2

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	<b>List of skills</b>	<b>ILOs subcomptancies</b>	<b>Weight*</b>	<b>Number of stations</b>	<b>Marks of OSCE</b>
<b>Skills</b>					
1.	Taking a consent	S1 G1-G18	6.25	1	1.5
2.	Taking history:previous anesthetic exposure,drugs and syptoms of different diseases relevant to anesthesia	S1 G1-G18	6.25	1	1.5
3.	Examination before induction of anesthesia	S2,S3, G1-G18	6.25	1	1.5
4.	Different manoeuvres of airway opening	S5,S6,S7 G1-G18	6.25	1	1.5
5.	Endotracheal intubation	S5,S6,S7 G1-G18	6.25	1	1.5
6.	Laryngeal mask airway insertion	S5,S6,S7 G1-G18	6.25	1	1.5

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7.	Flexible fiberoptic laryngoscopy	S5,S6,S7 G1-G18	6.25	1	1.5
8.	Basic life support	S5,S6,S7 G1-G18	6.25	1	1.5
9.	Assesment of recovery from general anesthesia	S5,S6,S7 G1-G18	6.25	1	1.5
10.	Management of intraoperative hypotension	S5,S6,S7 G1-G18	6.25	1	1.5
11.	Discharge from postanesthesia care unit	S5,S6,S7 G1-G18	6.25	1	1.5
12.	Management of delayed recovery	S5,S6,S7 G1-G18	6.25	1	1.5
13.	Oxygen therapy for a hypoxemic patient	S5,S6,S7 G1-G18	6.25	1	1.5



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14.	Intravenous cannulation and fluid administration	S5,S6,S7 G1-G18	6.25	1	1.5
15.	Assesement of postoperative pain	S5,S6,S7 G1-G18	6.25	1	1.5
16.	Management of postoperative pain therapy	S5,S6,S7 G1-G18	6.25	1	1.5

**Weight\*= decided according to hours, amounts of information and clinical significans**

## Lecture Outlines

### Lecture (1) Consent

Oxford handbook of Clinical Medicine. (10 edition , P:568,569)

#### Specific learning Objectives:

By the end of the lecture the student will be able to :

- 1- Define the time of the consent
- 2- Describe situations for informed written consent

#### Contents

- 1- For a consent to be valid
- 2- Capacity
- 3- When taking consent
- 4- Special circumstances for consent

### Lecture (2) Preoperative care

Oxford handbook of Clinical Medicine. (10 edition , P:566-567)

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Provide diagnostic and prognostic information
- 2- Assess/balance risks of anesthesia,and maximize fitness

**Contents:**

- 1-Family history
- 2-Drugs
- 3-Preparation

**Lecture (3) Preoperative care**

Oxford handbook of  
Clinical Medicine (10 edition P:566-567)

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Provide diagnostic and prognostic information
- 2- Assess/balance risks of anesthesia,and maximize fitness

**Contents:**

- 1.History
- 2.Examination
- 3.Tests
- 4.American society of anesthesiologists(ASA) classification

**Lecture (4) Airway management  
Amboss**

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Maintain patent unobstructed airway
- 2- Know the common instruments used to open obstructed airway

- 1-Airway anatomy
- 3-Simple manoeuvres to open the airway
- 4-Airway adjuncts

**Lecture (5) General anesthesia(GA)**

Oxford handbook of Clinical Medicine (10 edition P: 572,573)

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Define the basic components of the modern anesthesia machine
- 2-Define general anesthesia
3. Manage general anesthesia **Contents:**
  - 1-Definition of GA
  - 2-Induction of GA
  - 3-Maintenance of GA
  - 4-Emergence from anesthesia
  - 5-Post anesthesia care unit(PACU)

**Lecture (6)Regional anesthesia(RA) Amboss**

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Define the goal,advantages and disadvantages of RA
- 2- Define the different types of RA **Contents:**
  - 1-Definition of RA
  - 2-Advantages and disadvantages
  - 3-Classification og RA
  - 4-Local anesthetics

**Lecture (7) Intraoperative monitoring**

**Morgan and Mikhail,s Clinical anesthesiology 6<sup>th</sup> edition Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

Be familiar with the different standard intraoperative monitoring techniques and and their significance

**Contents**

**Cardiovascular monitoring** Arterial

blood pressure

Electrocardiography

Central venous cannulation

Cardiac output

**Noncardiovascular**

Pulse oximetry

Capnograph

Temperature

Urine ouyput

Peripheral nerve stimulator

**Lecture (8) Basic  
life support**

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1.Diagnose cardiac arrest
2. Do safe and efficient cardiac massage
3. Perform expired air ventilation

**Contents:**

- 1.Diagnosis of cardiac arrest
- 2.Technique of external cardiac massage
- 3.Opening the airway
- 4.Expired air ventilation

**Lecture (9) Revision**

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1-Recognize the disadvantages of inadequate pain control
- 2-Define the different methods of postoperative pain relief

**Contents:**

**Lecture (10) Intraoperative anesthetic risks**

*Amboss*

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

Recognize different intraoperative anesthetic risks, Diagnosis and treatment

**Contents:**

1. Dfferent intraoperative anesthetic risks
- 2.Diagnosis

3.Treatment of these risks

**Lecture (11) Postoperative complications:part I**

*Oxford handbook of Clinical Medicine (10 edition P: 576,577)*

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

1. Identify all possible postoperative complications
  2. Diagnostic of these complications
  3. Know the principles of treating these complications
- Contents:**
1. Pyrexia
  2. Confusion
  3. Dyspnea or hypoxia

**Lecture (12) Postoperative complications:part II**

Oxford handbook of Clinical Medicine (10 edition P: 576,577)

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

1. Identify all possible postoperative complications
2. Diagnostic of these complications
3. Know the principles of treating these complications

**Contents:**

1. Hypotension and hypertension
2. Oliguria
3. Sodium
4. Bleeding

**Lecture (13) Postoperative pain therapy**

Oxford handbook of Clinical Medicine (10 edition P: 574,575)

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

1. Identify the disadvantages of inadequate pain control
2. Define the different methods of postoperative pain relief

**Contents**

- 1-Physiological consequences of poor postoperative pain control
- 2-Assessing of acute pain
- 3-Postoperative pain management

**Lecture (14) Fluid therapy**

Amboss

**Specific learning Objectives:**

**By the end of the lecture the student will be able to : Know  
different types of intravenous fluid therapy**

**Contents:**

- 1.Types of fluid therapy**
- 2.Complications of fluid therapy**

**Lecture (15)Oxygen therapy**

Amboss

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

**To identify and properly use the different oxygen therapy devices Contents:**

- 1.Indications of oxygen therapy
- 2.Methods of oxygen therapy
- 3.Complications of oxygen therapy

**Outlines of topics for self directed learning and  
case based discussions**

**Case (1) Consent Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with syncope

**Case (2)Preoperative history Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations
- 3- Select the suitable anesthetic technique

**Case (3) Preoperative examination**

Handout

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into an accurate patient examination
- 2- Select the appropriate investigations.
- 3- Select appropriate anesthetic technique

**Case (4)Premedicationof a surgical patient**

Handout

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

Select the premedication appropriately

Revision

**Case (5)Evaluation of the airway Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

1. Assess the airway preoperatively
2. Familiar with the equipment which should be available for airway management

**Case (6)Induction and maintenance of general anesthesia**

Handout

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Be familiar with different technique of induction of anesthesia
- 2- Identify How to maintain anesthesia
- 3- Identify Recovery from anesthesia **Revision**

**Case (7) Spinal anesthesia Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Select the suitable patients for spinal anesthesia
- 2- Differentiate between spinal and epidural anesthesia
- 3- Identify How to maintain safe spinal anesthesia

**Case (8) Local anesthetic overdose**

Handout

**Specific learning Objectives:**

By the end of the lecture the student will be able to :

1. Be familiar with the different types of local anesthetics
2. To know the safe doses of local anesthetics
3. Identify Diagnosis of local anesthetic toxicity

**Case (9) Cardiac arrest Handout**

**Specific learning Objectives:** By the end of the

lecture the student will be able to :

- 1- Diagnose cardiac arrest
- 2- How to perform safe and efficient basic life support
- 3- Know the role do defibrillator
- 4- Be familiar with the essential drugs for advanced cardiac support

**Case (10) Hemodynamic monitoring and management of hemodynamic instability Handout**

**Specific learning Objectives:** By the end of the

lecture the student will be able to :

- 1- Know the standard intraoperative hemodynamic monitors

**Case (11) Intraoperative hypothermia Handout**

**Specific learning Objectives:** By the end of the

lecture the student will be able to :

- 1- Define and diagnose of hypothermia
- 2- To know the risks of intraoperative hypothermia
- 3- Identify Patients liable to intraoperative hypothermia
- 4- Identify how to prevent intraoperative hypothermia

**Case (12) Aspiration pneumonia Handout**



**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Identify patients at risk of aspiration pneumonia
- 2- Identify How to diagnose intraoperative aspiration
- 3- Identify How to prevent this complication

**Case (13) Delayed recovery from general anesthesia  
Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Define delayed recovery from general anesthesia
- 2- Identify the different causes of such problem
- 3- Diagnose and manage such problem

**Case (14) Postoperative pain Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Identify the hazard of postoperative pain
- 2- Identify how to relief this pain safely

**Case (15) Respiratory failure in the recovery room  
Handout**

**Specific learning Objectives: By the end of the**

**lecture the student will be able to :**

- 1- Identify patients liable to postoperative respiratory failure
- 2- Diagnose this problem
- 3- Manage the problem

**Case(16)Central anticholinergic syndrome  
Handout**

**Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

1. Identify patients at such risk
2. Manage these patients