The Core Curriculum of Surgery Clerkship of Undergraduate Medical Education

Translator:
Zahra Abbaspour-Tamijani M.D.

Preface

A word with the educational authorities, faculty members, and medical students

The curriculum of the clerkship of internal medicine is prepared based on the consensus of the faculty members of universities of medical sciences and vast inquiry from experts of medical education in the universities of medical sciences and deputy of health affiliated to ministry of health and medical education.

Obviously curricular communication with the students, faculty members, educational authorities, and other members of the medical school and university and providing appropriate educational environment is of a considerable importance.

At the end, we bring to your notice that the secretariat of the council for undergraduate medical education welcomes all suggestions and viewpoints of the connoisseurs of universities of medical sciences regarding improvement of the curriculum of undergraduate medical education.

Thus, please kindly communicate your valuable opinions to us at the following address:

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July 2009

This documented was endorsed in the 3rd Meeting of the Council for Undergraduate Medical Education.

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1- Length of the course: 2 months

2- Effective teaching hours during the course:

The students must attend in the surgical ward for about 250 hours of clinical education activity.

The theoretical course of surgery which is presented during the clerkship of surgery, equals 6 units.

Timing of the lecture-based courses and clinical rotations is generally determined according to the educational program of the clerkship course. All medical students are required to attend in the hospital ward at least since 7:30 AM to 2:00 PM each day and 5 days per week. In medical schools it is possible to teach theoretical and elective courses in the evenings and on Thursday.

3- Program manager : to be filled by the medical school.

4- Faculty members: to be filled by the medical school.

5- The expected outcome of the program:

The program objective is to establish a foundation for independent practice after graduation as a general practitioner and involves the principal aspects of health improvement, preventive medicine, and acute and chronic care in the domain of surgical disorders.

a- Knowledge:

1- Acquisition of the knowledge and the ability to apply it in approach to the common complaints and symptoms in surgical diseases

2- Knowledge of generalities of surgical diseases and acquiring the ability to apply it to primary medical care of the patients within the limits of general practitioner's duties

3- Acquisition of the knowledge of simple procedures in outpatient setting that the general practitioner must be able to do

b- Skill;

1- Ability to take clinical history and do accurate clinical examination in the surgical patients

2- Ability to do basic surgical techniques

3- Ability to interpret results of common laboratory tests and imaging techniques in surgery

c- Attitude:

Change in attitude and conduct according to compiled standards of general education approved in February 2007 with emphasis on medical and Islamic ethics, professional conduct, accountability and responsibility, effective communication and patient education, team work, community- orientation and prevention.

6- The criteria and methodology for determining the core content ;

- Needs of the country and community

- Prevalence of surgical diseases according to the official statistics of deputy of health

- National needs and priorities based on the 5-year development program and Iran's 20-year vision plan

- The viewpoints of surgical experts

- reference books and other authentic resources of surgery

- Accredited international educational programs

7- The content to be taught to yield the stated outcomes:

number	content
1	Acute abdomen
2	Intestinal obstruction
3	Principles of approach to the open and closed wounds
4	Obstructive jaundice and its differential diagnosis
5	Approach to the upper GI bleeding from surgical view
6	Approach to the lower GI bleeding from surgical view
7	Abdominal mass
8	Complaints related to breast (mass, pain, discharge)
9	Thyroid nodule
10	Varicose veins

11	Perianal complaints (mass, pain, discharge), anal fissure, hemorrhoid, pilonidal sinus
12	Hyperalimentation in surgical patients
13	Water, electrolyte and fluid therapy
14	Homeostasis (principles of transfusion)
15	Shock and its treatment from surgical view
16	Infections requiring surgical treatment, common post surgical infections
17	Approach to common traumas (primary evaluation, bleeding control and resuscitation, and secondary evaluation)
18	Burn(primary measures, resuscitation and care)
19	Approach to diabetic wounds
20	Skin(infections), approach to skin tumors from surgical view
21	Disorders of the chest (single nodule of the lung, lung cancer, pulmonary abscess, pneumothorax, approach to pleural effusion)
22	Arterial disorders (clinical manifestations, medical treatment of peripheral arteries, aneurism of abdominal aorta, acute and chronic obstructive arterial disorders)
23	Esophageal ulcer, esophageal cancer from surgical view
24	Peptic ulcer , stomach CA from surgical view
25	Small bowl (Meckel's diverticulum, mesenteric ischemia)
26	Common neoplasms of large bowl, rectal prolapse
27	Appendicitis
28	Liver (space occupying lesions, liver abscesses, hydatid cyst)
29	Bile stone and related disorders
30	Pancreas (acute pancreatitis, pancreatic mass)
31	Indications of splenectomy and its complications
32	Abdominal wall hernia

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33	Parathyroid (indications of parathyroidectomy and its complications)
34	Pheochromocytoma
35	Pediatric surgery (surgical emergencies and trauma, common anomalies of gastrointestinal tract, abdominal wall)

Skills

36	History taking and general clinical examination of surgical patients
37	Thorough examination of peripheral vessels
38	Breast examination
39	Diagnosis of acute abdomen
40	Rectal exam
41	Diagnosis of hernia
42	Interpretation of fluid and electrolyte and acid-base tests in the domain of surgical diseases
43	Control of external bleedings
44	Application of simple surgical instruments
45	Local anesthesia
46	Suturing and removing the stitch
47	Dressing and bandage
48	Application of aseptic techniques
49	Wearing the surgical glove
50	Intravenous, intramuscular, subcutaneous and intradermal injections, venipuncture and arterial puncture
51	Observation of sigmoidoscopy and its performance on the model
52	Abscess drainage

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53	Circumcision
54	Insertion of nasogastric tube
55	Insertion of urinary catheter
56	Airway opening (intubation, tracheostomy)
57	Lumbar puncture

Attitude

58	Responsibility for the patients
59	Ability to communicate and be in patient's confidence
60	Taking into account the thorough and systematic history taking and clinical examination
61	Taking into account the surgical history taking
62	Taking into account the documentation and recording
63	Taking into account the education of the patient and the accompanying person(s)
64	Taking into account the medical ethics
65	Taking into account the cost-efficient and quality care
66	Ability to record the data, write medical records and drug prescription letter
67	Ability to apply evidence- based medicine into surgery

8- Teaching and learning method:

Medical schools are required to apply the most appropriate educational strategies and teaching and learning methods for each of the above-mentioned contents according to the subject and within the limits of available facilities. Some of these methods are mentioned below:

Role playing, role model, video presentation, small group discussion, bedside- teaching, procedural skill teaching, task- based teaching, case- based teaching, etc.

9- Formative assessment of knowledge, skill, and attitude and feedback technique during the course (Timing and frequency of assessments must be stated.)

- Formative and summative assessments must be done during and at the end of the course, respectively.

Assessment is required to target knowledge, skill, and attitude. Assessment tools must be valid and reliable

For instance , some assessment tools are mentioned below:

1- Logbook, 2- DOPS, 3- Mini CEX, 4- OSCE, 5- CBD (case based discussion), 6- descriptive written examination and MCQ, 7- oral examination,8- global rating form

10- Curricular communication

- The curriculum must be available to the learners, faculty members, and educational and executive authorities of medical school or university at the beginning of the course and reachable at the university website.

11- Curricular management

-For implementation of the program, the necessary preparations including faculty member education

must be considered

- Continuous monitoring of the program by deputy of undergraduate medical education is necessary.

- Department chair must report the program evaluation to the medical school in regular intervals.

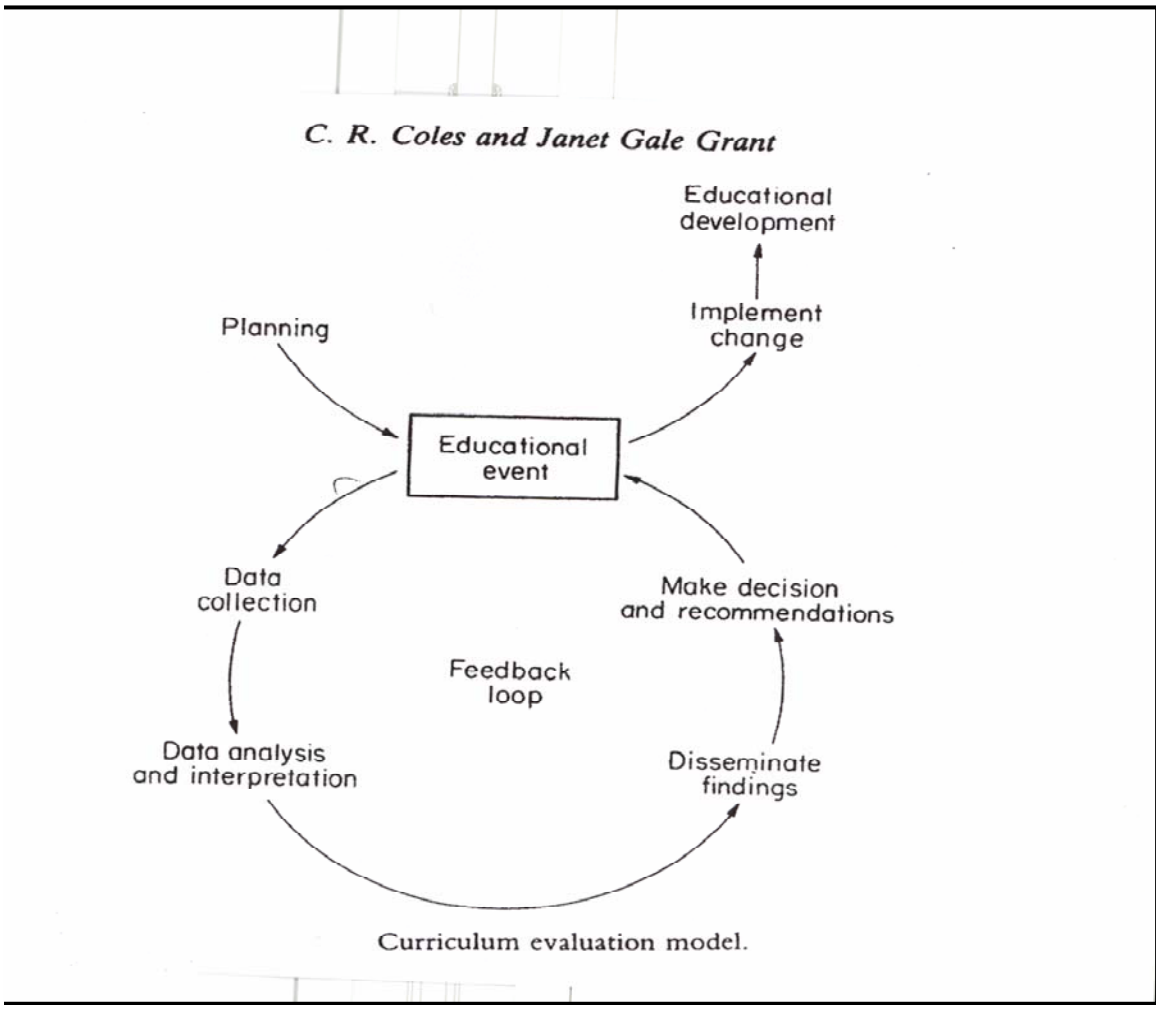
- Dean of the medical school is required to resolve the problems regarding implementation of the program with joint work of the authorities of the faculty.

12- Principal examination resources ;

Principal examination resources are the same as the comprehensive (pre- internship) examination .

13- Curriculum evaluation

- For each course, the curricular program must be evaluated by the educational department and under supervision of the medical school, according to the following model. The results must be considered for quality improvement of the educational program in the future courses:



- Educational department is required to submit the written report of the program evaluation to the medical school in regular intervals and also a copy of the report and actions taken to the members of the evaluation unit of secretariat of the council for undergraduate medical education in order to improve and ameliorate the program.