

Kingdom of Saudi Arabia
Ministry of Education
Umm Al Qura University
Faculty of Applied Medical Sciences
Vice Dean for Hospital Affairs
Clinical Nutrition Program



Clinical Nutrition

Internship Booklet





المملكة العربية السعودية
وزارة التعليم
جامعة أم القرى
كلية العلوم الطبية التطبيقية
قسم التغذية الاكلينيكية

Clinical Nutrition Internship

| | |
|--------------------------|--|
| Intern Name | |
| University ID | |
| Training Year | |
| Training Hospital | |

Preface

Clinical Nutrition internship is an integral part of the Clinical Nutrition program and is designed to provide students with an opportunity to integrate and apply previously acquired knowledge and technical skills in actual clinical settings.

This internship booklet is prepared with the intention to provide orientation to interns about various tasks to be performed and/or observed in different disciplines during one-year internship at the hospitals. The ultimate goal is that intern may acquire necessary practical skills in performing various clinical nutrition tasks in different disciplines and hospital sections which in turn will help to improve health care services.

The beginning of the booklet entails the description of Clinical Nutrition program stating its vision, mission, goals and objectives. Following this, rules and regulations of internship are stated which each intern has to follow in addition to the instructions issued by the training site.

The main contents of this booklet are the tasks list given in various hospital wards in internship portfolio which interns are expected to either perform or observe during the training.

It is essential to evaluate intern's professional behavior and technical competencies that are expected to achieve on completion of her internship. The later part of the booklet contains samples of various forms (Forms #1 to Form #5) including supervisor evaluation form and intern feedback form.

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INTERN INFORMATION

| | |
|-----------------------------|-------------|
| Name | Arabic: |
| | English: |
| University ID | |
| National ID | |
| Mobile | |
| In case of emergency | Mobile no.: |
| | Relation: |
| E-mail | |
| Address | |

Clinical Nutrition Program

1. Vision, Mission, Goals, Objectives and Values of the Program

1.1. Vision:

The clinical nutrition program is to be one of the leading programs at the national and regional levels recognizing our graduates for their professional competence, leadership quality, and competitive research.

1.2. Mission:

The mission of clinical nutrition program at Umm Al-qura University is to provide innovative curricula responsive to the needs of the profession that result in clinical nutrition professionals able to immediately join the health care field with the theoretical knowledge and technical skills. Moreover, our graduates will be prepared to be able to adapt to future changes in the health care system and clinical nutrition science as well as the changing needs of the growing diverse society in Holy Makkah.

1.3. Goals:

- To obtain national and international academic accreditation.
- To prepare competent nutrition specialists who have acquired necessary knowledge, skills, training and proficiency in clinical nutrition.

1.4. Objectives:

Upon completion of clinical nutrition program our graduates are expected to:

1. Have in-depth knowledge of the relationships between nutrition data and pathologic processes, and how nutrition data relate to health and disease.
2. Have the talent to design, evaluate and implement new methods or protocols in different cases.
3. Have the ability to work independently and as a team member to perform critical thinking and problem solving skills in different domains.
4. Have the capability to demonstrate an attitude of

professionalism when working with colleagues and other health professional staff of the hospital.

1.5. Values:

Clinical Nutrition Program observes following values:

1. Observance of Islamic values
2. Professional commitment and ethics
3. Respect and appreciation of differences
4. Appreciation of social responsibilities
5. Life-long learning
6. Excellence in all areas, particularly in teaching, training and research
7. Transparency

2. Program Description:

Faculty of Applied Medical Sciences, Umm Al-qura University offers the program leading to Bachelor degree (B.Sc.) in Clinical Nutrition. The program provides students a strong foundation in theory, training in clinical nutrition, research and managements domains.

The program comprises of eight semesters plus one-year internship (hospital based training) in clinical nutrition, after which the degree of B.Sc. in clinical nutrition is awarded to successful candidates. A student undertaking this program must complete a total of 132 credit units which are distributed as 20 credit units' university requirements, 29 college requirements and 83 credit units' program requirements.

2.1. The language of teaching: English.

2.2. In addition, students are expected to develop certain academic skills such as essay and report writing, presentation skills and statistical analysis. These essential skills will allow the student to complete two important components of the program:

2.2.1. The Research Project: This 3 credit units' course is offered in 7th semester and completing by the end of 8th semester. The students are provided with a list of projects proposals to choose from after agreement with supervisors in the department. It is expected that the students will apply knowledge and skills learnt during this course such as research methodology, data analysis and interpretation and presentation of research results during the experimental work of their research project.

At the end of the course students need to submit a thesis and give a seminar on their project and defend their work in discussion.

2.2.2. The Internship: This one full year (summer, first and second semesters) professional training is offered to each interneer in three different general or specialized government hospitals. During this year, interns undergo in-depth training in all the wards of the hospital.

The supervision of interns is done at two levels; one by the hospital training coordinator and other by the program internship coordinator who reports to Vice Dean for Hospital Affairs. During training at the hospital, intern is supervised on daily basis by the supervisor for particular rotation. The internship monitoring team of the program visits training sites regularly (at least once in each four-months training rotation) and meet the interns and their supervisors to discuss their progress and addresses issues, if any.



INTERNSHIP SPECIFICS

Introduction:

Internship is an integral part of clinical nutrition program and is designed to provide interns with an opportunity to integrate and apply previously acquired knowledge and technical skills in actual clinical settings. Under the guidance of experienced clinical nutrition professionals, dietitians and other qualified personnel and health professionals, interns learn more about nutrition care process, food services including food management, food hygiene, food safety and evaluation of dietary orders. Interns will also be trained in developing dietary plan for patients with specific diseases, calculation of dietary requirements for patients and will be able to make nutritional diagnosis. They also gain an understanding of the roles and functions of the clinical nutritionists and dietitian.

The internship provides applied learning experiences during which the intern should:

1. Practice and acquire skills as of clinical nutritionist and dietitian
2. Practice skills in nutritional diagnosis
3. Correlate various physical and laboratory parameters with nutritional diagnosis
4. Calculate nutrients requirements
5. Develop food plan for patients with specific diseases
6. Understand the responsibilities, roles, and functions of clinical nutritionists

The internship program is conducted in the affiliated hospitals or primary health care facilities of the program, where interns learn by participating in the workload of a supervising nutritionist/ dietitian / specialist/consultant. Emphasis in each internship discipline is given on: a) organization of work, b) use of standard dietary methods, c) correlation of physical and laboratory parameters for patient's nutritional requirements, and d) the establishment and use of programs for quality control and preventive maintenance for food services and its safety.

I. Internship eligibility criteria:

Entry in internship is allowed only after successful completion of all courses of clinical nutrition program specified.

II. Internship duration:

The training period for the internship is one calendar year. It is offered in 5th academic year of the program and begins two weeks after the final examination of 4th academic year.

III. Internship disciplines:

The internship program is spread over one year during which each intern takes training in various disciplines of clinical nutrition, e.g., nutrition care process, dietary planning, nutritional requirements, nutritional diagnosis and intervention, food services as well as food hygiene and safety. Interns are rotated in all the departments of the hospital. The schedule of training is given in the forthcoming section.

Each intern needs to complete internship portfolio during the whole training period. In addition, they need to maintain a logbook for nutrition care process for various patients for each rotation, and another logbook deals with food services once a year.

IV. Internship rotations:

Rotations in the internship year depend on the program needs. In clinical nutrition program, each intern has three rotations of 4 months each in three hospitals and/or primary health care facilities and trained in different wards, clinics and food services areas.

V. Interns' responsibilities:

Each intern should have two booklets; a) internship policy and general regulations booklet, and b) program specific internship booklet that contains the tasks for each discipline. Each intern must go through both booklets thoroughly.

Internship policy and general regulations booklet has the details of general policy and rules and regulations of internship including vacations that all interns have to follow.

In program specific booklet each intern must use the internship portfolio on daily basis and complete it at the end of each rotation. Intern is advised to seek help of immediate supervisor in filling and completing the portfolio. Internship monitoring team will review and assess the portfolio on their periodic visits to training sites and will assign the marks.

During internship period, interns have to demonstrate following responsibilities:



1. All interns should produce required vaccination document.
2. All interns should provide Basic Life Support (BLS) certification at the beginning of internship. The guidance for obtaining BLS certification will be provided by the office of the Vice Dean for Hospital Affairs.
3. Perform training in accordance with the policies and procedures of the nutrition department of the training site.
4. All interns should comply with dress code specified by the training site.
5. Interns usually spend at least 8 hours daily, 5 days/week or follow the working hours of clinical site where she is being trained.
6. Interns must refrain from unsafe and unprofessional conduct.
7. Show professional behavior as clinical nutrition professionals.
8. Perform assigned work with responsibility.
9. Adhere to hospital rules and regulations.
10. Attempt to establish good working relationships with all personnel with whom they come in contact during the internship rotation.

VI. Internship supervision and monitoring:

The supervision of interns is done at two levels; one by the hospital training coordinator and other by the program internship coordinator designated by the faculty for this purpose and report to Vice Dean for Hospital Affairs. During training at hospital, intern is supervised on daily basis by the supervisor for particular rotation.

Clinical nutrition program has three training rotations (4 months each) during the internship period of one year. The internship monitoring team visits regularly at least once during each rotation to training sites and meet the interns and their supervisors to discuss their progress and addresses issues, if any. However, urgent issues can be reported to internship coordinator whenever is required. The monitoring team submits the report of each visit to program internship coordinator using a prescribed form (**Form #5**).

A staff member of clinical nutrition department from the university is assigned a group of interns which he/she follow and also encourage the hospital staff to help interns to complete all paper work and feedbacks. The hospital staff and interns should be aware of the visit date and time. The visits will be for whole day for interns in the same hospital at random timing during the four months' intervals of training in specific hospitals.

VII. Interns' Evaluation:

a. Evaluation of interns by hospital and faculty supervisors:

Professional behavior and technical performance are evaluated using an evaluation form designed to reflect interns' competencies that are expected to achieve on completion of their internship in clinical nutrition. Evaluation by hospital supervisors has 80% weightage. This evaluation is organized into three domains:

(1) General clinical competencies i.e., affective behavior, attitude, initiative and motivation while at the rotation site;

(2) Discipline competencies i.e., ability to demonstrate basic theoretical and practical and technical ability in performing various clinical nutrition procedures; and

(3) Assessment of activities that are in the normal course of daily routine and that intern would normally attend or participate in seminars/lectures, in-service workshops, and their presentations. All three domains are rated on percent competency.

At the end of each rotation intern will be evaluated by his/her immediate supervisor using an evaluation form (**Form #1**) provided by the program internship coordinator. The supervisor will submit the evaluation form for each intern to the program training coordinator. A summary of internship evaluation (**Form #2**) will be prepared by the training coordinator and at the end of internship period evaluation report of each intern will be submitted to Hospital Training and Education Office which will submit this report to Vice Dean for Hospital Affairs of the Faculty.

In addition, interns will also be evaluated for their commitments in completing portfolio assigned to them. Portfolio assessment will be performed at the end of training period. The portfolio file needs to be submitted for review to the university internship staff of the program one week before the meeting. Later, a meeting of university staff with interns will be arranged to discuss intern's achievements as well as strength and weakness in preparation of the portfolio. Intern will also be provided with the marks (20 marks for the portfolio).

The schedule of university staff visit is given in the table below (Table 1):

Table 1: Time line, interval of training and assessment

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------------------|-----------------------|---|---|---|-----------------------|---|---|---|-----------------------|----|----|----|
| Training interval | 1st training interval | | | | 2nd training interval | | | | 3rd training interval | | | |
| Assessment | | | E | P | | E | | P | | | E | P |

E = Intern evaluation in the hospital

P = Intern portfolio assessment

b. Evaluation of interns by program internship committee:

The evaluation of interns by program internship committee has 20% weightage. Each intern is evaluated by this committee using a prescribed form (**Form #3**) for his/her professional development and continued medical education on the basis of her participation or attendance in faculty/university scientific conferences, seminars, symposia and workshops. Each intern must fill the details of his/her participation or attendance and attach copy of certificates when submitting the booklet at the end of internship. This section carries 10 marks. Failing to do so will lose these marks.

Interns will also be evaluated by this committee for the following two things:

a) Participation in community activities and services carries 5 marks. Each intern needs to list their participation and attach certificates.

b) Filling intern feedback form (**Form #4**) at the end of each rotation of the internship is essential. Filling intern feedback form also carries 5 marks. Any intern not filling intern feedback form for the disciplines in which they are trained will either lose these marks or gets less mark if filled partially.

VIII. Evaluation of training rotations by interns:

Interns' evaluation of rotation sites is a part of our reciprocal evaluation procedure. Interns must fill intern feedback form **(Form #4)** at the end of each rotation. Interns must make sure that intern feedback form for all disciplines are filled in which they are trained and submitted to program internship coordinator at the end of each rotation.

IX. Internship grading:

Grades for clinical nutrition internship are calculated using intern evaluation forms **(Form #1 and #2)** and evaluation by program internship committee **(Form#3)**. Percent/grades are determined based on the performance in each of the components. The final percentage out of 100 is worked out as follows: 80% weightage will be given to hospital training evaluation and 20% weightage for program internship committee evaluation. The minimum of 60% is required for successful completion of internship. The percentage component of grades is then converted to letter grades. University grading system is used to determine the grade (please see the table-2 below).



Table 2: University Grading System

| Percentage obtained | Grade | Letter Grade |
|---------------------|---------------|--------------|
| 95 to 100 | Exceptional | A+ |
| 90 to 94 | Excellent | A |
| 85 to 89 | Superior | B+ |
| 80 to 84 | Very Good | B |
| 75 to 79 | Above Average | C+ |
| 70 to 74 | Good | C |
| 65 to 69 | High pass | D+ |
| 60 to 64 | Pass | D |
| Less than 60 | Fail | F |

Note: All forms are available in the "Forms" section.

X. Award of internship certificate:

After successful completion of training, intern should submit the **"internship booklet"** duly signed by the supervisors for each rotation to program internship coordinator. The intern will be granted a certificate by the Faculty after approval of clinical nutrition internship committee.

Note: Any intern who fails to submit internship booklet will not be awarded internship completion certificate.

AGREEMENT LETTER

Dear Intern,

Please read carefully Rules, Regulations and Guidelines stated for internship year. Sign the statement below to ensure that you understood all contents of internship and agree to adhere to the Rules, Regulations and Guidelines.

I have read, understood, and agree to adhere to the Rules, Regulations and Guidelines stated in Clinical Nutrition Internship Booklet.

Intern Name: _____

University ID No: _____

Signature: _____





UMM AL QURA UNIVERSITY
 Faculty of Applied Medical Sciences
 Department of Clinical Nutrition
 Clinical Nutrition Internship

PROPOSED TRAINING SCHEDULE

| Internship Discipline | Number of Weeks |
|--|-----------------|
| Orientation | 3* |
| Food services area | 3 |
| Surgery | 4 |
| Medical ward | 6 |
| Dialysis | 3 |
| Pediatrics | 4 |
| Obstetrics and gynecology | 4 |
| Intensive care unit | 4 |
| Orthopedics | 2 |
| Cardiology | 4 |
| Clinic, diabetic or weight management center | 5 |
| Oncology | 2 |
| Neurology | 2 |
| Optional | 2** |
| Total training period | 48 |

* One-week orientation in each hospital

** Maximum 2 weeks for optional training in other hospital wards not listed above.

RAMADAN AND HAJJ HOLIDAYS

(NOTE: *Interns should follow Hospital rules and regulations for Ramadan and Hajj holidays.*

Internship Rotation Sheet

Name of the Hospital: _____

| Hospital departments | Total Weeks | Training weeks in the hospital | Period (dates) | Remaining weeks | Rotation order |
|--|-------------|--------------------------------|----------------|-----------------|----------------|
| Orientation | 3 | | | | |
| Food services area | 3 | | | | |
| Surgery | 4 | | | | |
| Medical ward | 6 | | | | |
| Dialysis | 3 | | | | |
| Pediatrics | 4 | | | | |
| Obstetrics and gynecology | 4 | | | | |
| Intensive care unit | 4 | | | | |
| Orthopedics | 2 | | | | |
| Cardiology | 4 | | | | |
| Clinic, diabetic or weight management center | 5 | | | | |
| Oncology | 2 | | | | |
| Neurology | 2 | | | | |
| Optional | 2 | | | | |

1. The interns should rotate in all the wards of above list in different hospitals during the internship. The rotation is intern's responsibility.
2. Optional weeks are chosen according to:
 - a. Any department in which intern needs further training.
 - b. Other departments not listed above such as: metabolic disorder diseases, psychiatric, rehabilitation, CCU, etc.

Note: Please indicate where you would like to spend more, less or the same amount of time in the above mentioned sections, and why?





UMM AL QURA UNIVERSITY
Faculty of Applied Medical Sciences
Department of Clinical Nutrition
Clinical Nutrition Internship

Safety Measures in Clinical Nutrition

All interns must read and understand the information given below with regards to safety measures to be adopted during the internship in the hospital and in particular to food services area. Interns must adhere to written and verbal safety instructions throughout the internship period. Although safety information will be provided by the hospital safety officer before the beginning of internship, following general safety guidelines will help you to work in safe environment during the internship period. Each intern must sign below to ensure that he/she understood all the contents of safety considerations.

| | Tasks |
|-----------|--|
| A. | <i>General safety measures</i> |
| 1 | Always wear proper uniform or apron while working. After work, leave the apron in an assigned cabinet or area. |
| 2 | Shoes should be fluid impermeable material and cover the entire foot. |
| 3 | Always cover any cut, insect bite or open wound with water-proof adhesive dressing. |
| 4 | Gloves should be removed (unless stated to wear) before handling telephones, computer keyboards, equipments, utensils, doorknobs, etc. |
| 5 | Eating, drinking, smoking and chewing gum are prohibited in the working area. |
| 6 | Mouth pipetting must not be done. |
| 7 | Hands should be washed with soap and water after finishing the work. |
| 8 | Inform your supervisor about any accidents or potential hazard. |
| 9 | Follow standard safety precautions issued by the hospital. |

| Tasks | |
|---|---|
| B <i>Safety measures in food services area</i> | |
| 1 | Must wear personal protective equipment (gown, gloves, masks, etc.) and hair restraint should be worn when handling food materials. |
| 2 | Fingernails should be short, unpolished, and clean. |
| 3 | The application of cosmetics within food services area is strictly prohibited. |
| 4 | Contact lenses should not be worn while working in the food services area. |
| 5 | Working surfaces in food services area should always be cleaned before and after use. |
| 6 | All waste and contaminated materials should be disposed in appropriate containers. |
| 7 | Follow standard air borne safety precautions. |
| C <i>Emergency response</i> | |
| 1 | Read safety and fire alarm posters and follow the instructions during an emergency. |
| 2 | Know the location of fire extinguisher, fire exits, and first aid kit and eyewash solution in your lab and know how to use them. |
| 3 | Know the building evacuation procedure in an emergency. |

Intern's Name: _____

Signature: _____ **Date:** _____



Internship Portfolio

Clinical Nutrition





UMM AL QURA UNIVERSITY
 Faculty of Applied Medical Sciences
 Department of Clinical Nutrition
 Clinical Nutrition Internship

PORTFOLIO CONTENTS

| S. No | Details |
|-------|--|
| 1 | Intern's personal information |
| 2 | Portfolio instructions |
| 3 | Internship rotation sheet |
| 4 | Internship orientation checklist |
| 5 | Food services (food management, food hygiene and evaluation of diet order) |
| 6 | Nutrition care process logbooks |
| 7 | Appendices |
| 8 | Evaluation of interns by clinical nutritionist |
| 9 | Intern feedback of internship |

Intern Personal Information

| | |
|-----------------------------|--|
| Intern Name | |
| University ID | |
| Hospital Name | |
| Period of Internship | |
| Portfolio No. | |

Portfolio Instructions

- 1) Personal information should be filled completely.
- 2) Internship rotation sheet should be completed by the interns on the first day of the training of each rotation with the help of hospital supervisor.
- 3) The orientation week in the hospital includes information about: different hospital departments, training period in each department, the role of nutrition in each department, safety and emergency practices in the hospital, hospital staff members' knowledge and remarks about nutrition. Interns must complete the orientation checklist during the first week of the orientation and submit to university supervisor of each hospital, who will submit to program internship coordinator.
- 4) Food services manual contains following parts:
 - a. Food management: determining the role of dietician in the food services area.
 - b. Food hygiene: monitoring and recording of Hazard Analysis and Critical Control Points (HACCP) system protocol with flow diagrams, identifying hazard analysis and critical control points in food processing area.
 - c. Determining suitability of diet menus of Ministry of Health for the patients.
 - d. Evaluation of diet order from the doctor and how to communicate to medical staff (doctors and nurses) to make suitable nutritional modifications to the order as well as to enteral and parenteral feeding.
 - e. Evaluation of served meals with respect to specific disease.
 - f. Evaluation of served meals according to diet order.
 - g. Follow-up the acceptance and satisfaction of the patients to the diet.
 - h. Evaluation of worker's performance and their knowledge about clinical nutrition.

- 5) Complete one case weekly in the logbook by computer and add corresponding charts, figures and diagrams.
- 6) Participations and presentations in conferences, symposiums and hospital seminars and preparation of their hand-outs.
- 7) Evaluation of interns by will be accomplished by:
 - a. hospital supervisor (Form #1 and #2),
 - b. internship committee (Form #3), and
- 8) Evaluation of internship by the interns will be performed by filling Intern's feedback form (Form #4).

Internship Rotation Sheet

Name of the Hospital: _____

| Hospital departments | Total Weeks | Training weeks in the hospital | Period (dates) | Remaining weeks | Rotation order |
|---|-------------|--------------------------------|----------------|-----------------|----------------|
| Orientation | 3 | | | | |
| Food services area | 3 | | | | |
| Surgery | 4 | | | | |
| Medical ward | 6 | | | | |
| Dialysis | 3 | | | | |
| Pediatrics | 4 | | | | |
| Obstetrics and gynecology | 4 | | | | |
| Intensive care unit | 4 | | | | |
| Orthopedics | 2 | | | | |
| Cardiology | 4 | | | | |
| Clinic, diabetic or weight management center | 5 | | | | |
| Oncology | 2 | | | | |
| Neurology | 2 | | | | |
| Optional | 2 | | | | |

1. The interns should rotate in all the wards of above list in different hospitals during the internship. The rotation is intern's responsibility.
2. Optional weeks are chosen according to:
 - a. Any department in which intern needs further training.
 - b. Other departments not listed above such as: metabolic disorder diseases, psychiatric, rehabilitation, CCU, etc.

Note: Please indicate where you would like to spend more, less or the same amount of time in the above mentioned sections, and why?

Internship Orientation Checklist

Name of the Hospital: _____

Instructions:

Please complete the following by ticking (√) "Yes" or "No" box. Items' identification is considered to be an important part of a successful orientation. If the answer is "No", please explain under the comment section. Please return the form with comments to university supervisor of each hospital, who will submit this to program internship coordinator.

| No. | YES | NO | |
|-----|--------------------------|--------------------------|--|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | Staff was informed about the intern prior to their arrival. |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | Hospital policies that may have impact on the intern have been discussed. |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | The intern has met the head of the clinical nutrition department and other workers. |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | The intern is aware of training center in the hospital and the identification card was obtained. |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | The intern is aware of the hospital profile and wards. |
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | The intern has toured the hospital. |
| 7. | <input type="checkbox"/> | <input type="checkbox"/> | Rotation sheet was completed based on hospital's wards. |
| 8. | <input type="checkbox"/> | <input type="checkbox"/> | Hospital's nutrition assessment and screening sheets were completely understood. |
| 9. | <input type="checkbox"/> | <input type="checkbox"/> | The intern is aware of dress requirement, safety and emergency procedures. |
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | The intern is aware of the availability of classrooms or conferences areas. |
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | The intern is aware of the library facilities within the hospital. |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | Skills and evaluation forms have been discussed. |
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | Comments: About orientation week that have been brought forth either by the intern or hospital supervisor. |

Any other comments:

Intern Name: _____

Signature: _____

Date: _____



Food Services Manual



A. Food Management and Hazard Analysis and Critical Control Points (HACCP)

| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| A | Menu control: | |
| 1 | What types of menus are used? 1.....2. 3.....4..... 5.....6..... 7.....8..... 9.....10..... 11.....12..... | |
| 2 | How often does the menu change? | |
| B | Ingredients control: | |
| 3 | Are recipes standardized? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Uncertain <input type="checkbox"/> | |
| 4 | Explain ingredient control procedure used. | |
| 5 | List standardized portion sizes for some of the items on the menu; for example, soup, a casserole, meat, fish, poultry, vegetable, dessert, etc. | |
| 6 | The portions are: 1. Adequate <input type="checkbox"/> 2. Too large <input type="checkbox"/> 3. Too small <input type="checkbox"/> | |

| Code | Food Service and quality Control in Hospital | Observations |
|------|---|--------------|
| C | Purchasing control: | |
| 7 | Who is responsible for purchasing? | |
| 8 | What are their qualifications? | |
| 9 | Are specifications used? If so, who determines the specifications? | |
| 10 | What are purchasing procedures? | |
| 11 | The purchasing procedures are: 1. Formal 2. Informal 3. Another | |
| 12 | Your comments on purchasing process: | |

| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| D | Receiving and storage: | |
| 13 | Describe receiving process: | |
| 14 | Describe storage and issuing processes: | |
| 15 | What method(s) is/are used for inventory control? | |
| 16 | Your comments on receiving and storage processes: | |



| Code | Food Service and quality Control in Hospital | Observations |
|-----------------------------|---|--------------|
| E Computer use: | | |
| 17 | Are computers used in the facility? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 18 | Are computers used in diet planning? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 19 | If so, what kind are they and what are their functions? | |
| F Financial control: | | |
| 20 | What financial reporting forms are used, and by whom? | |
| 21 | Your comments on financial control process. | |

| Code | Food Service and quality Control in Hospital Checklist | Observations |
|----------|--|--------------|
| G | Personnel: | |
| 22 | <p>Describe the plan for orientation and training procedures:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| 23 | <p>Are there procedures in place to protect employees from accidents and injuries?</p> <p>1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/></p> | |
| 24 | <p>Emergency policies for kitchens accidents and injuries:</p> <p>1. Available <input type="checkbox"/> 2. Not available <input type="checkbox"/></p> | |
| 25 | <p>Your comments on receiving and storage processes:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| H | Sanitation and safety: | |
| 26 | <p>Sanitation and safety:</p> <p>1. In use <input type="checkbox"/> 2. Not in use <input type="checkbox"/></p> | |
| 27 | <p>How food temperature is monitored?</p> <p>.....</p> <p>.....</p> | |
| 28 | <p>Are there any thermometers in use?</p> <p>1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/></p> | |



| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| H | Sanitation and safety: (continue) | |
| 29 | What are the procedures for preparing and storing potentially hazardous foods? | |
| 30 | What types of cleaners and sanitizers are being used? | |
| 31 | What waste disposal and recycling methods are used? | |
| 32 | What measures are taken for insects, rodents and pest control and eradication? | |



| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| H | Sanitation and safety: (continue) | |
| 33 | <p>What is routine for washing, rinsing or sanitizing food contact surfaces and the utensils used in the preparation of foods?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| 34 | <p>How frequently is there an in-house inspection?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| 35 | <p>Where fire extinguishers are located and what type are they?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| I | Types of cooking methods: | |
| 36 | <p>Dry-heat methods:</p> <p>1. Baking barbecuing <input type="checkbox"/> 2. Broiling</p> <p>3. Grilling <input type="checkbox"/> 4. Roasting searing</p> <p>5. Toasting <input type="checkbox"/> 6. Rotisserie</p> | |
| 37 | <p>Moist-heat methods:</p> <p>1. Blanching <input type="checkbox"/> 2. Boiling <input type="checkbox"/></p> <p>3. Braising <input type="checkbox"/> 4. Simmering <input type="checkbox"/></p> <p>5. Steaming <input type="checkbox"/> 6. Stewing <input type="checkbox"/></p> | |

| Code | Food Service and quality Control in Hospital | Observations |
|----------|--|--------------|
| I | Types of cooking methods: (continue) | |
| 38 | Fat-based methods: 1. Browning <input type="checkbox"/> 2. Stir frying <input type="checkbox"/> 3. Deep frying <input type="checkbox"/> 4. Sautéing <input type="checkbox"/> 5. Shallow frying <input type="checkbox"/> | |
| 39 | Device-based methods: 1. Bain-marie <input type="checkbox"/> 2. Cooking <input type="checkbox"/> 3. Microwaving <input type="checkbox"/> 4. Pressure cooking <input type="checkbox"/> | |
| 40 | Are cooking methods selected according to type of disease? 1. Yes 2. No | |
| J | Types of measurement: | |
| 41 | Metric and imperial measures: 1. Liters and milliliters <input type="checkbox"/> 2. Kilograms and grams <input type="checkbox"/> 3- Pounds <input type="checkbox"/> 4. Ounces <input type="checkbox"/> 5- Another <input type="checkbox"/> | |
| 42 | Home-made measures: 1. Cups <input type="checkbox"/> 2. Spoons <input type="checkbox"/> 3. Another <input type="checkbox"/> | |
| 43 | Are personnel having knowledge about the conversion tables? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| K | Meal setting: | |
| 44 | Meal –courses: What are the most common food items of meal courses? 1. A soup course <input type="checkbox"/> 2. The main course <input type="checkbox"/> 3. Salad course <input type="checkbox"/> 4. Green salad course <input type="checkbox"/> 5. Dessert course <input type="checkbox"/> 6. Beverages <input type="checkbox"/> | |
| L | Herbs and spices: | |
| 45 | What is the main purpose of their use? 1. Culinary <input type="checkbox"/> 2. Medicinal <input type="checkbox"/> | |
| 46 | Do personnel use herbs and spices? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |

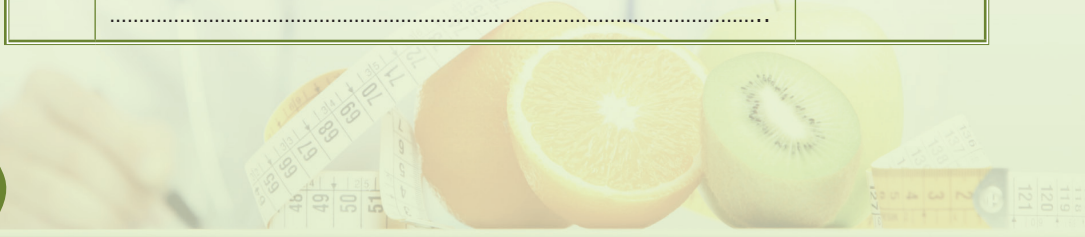
| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| L | Herbs and spices: (continue) | |
| 47 | <p>If, yes, which of the following common herbs and spices used:</p> <p>1. Mustard <input type="checkbox"/> 2. Black pepper <input type="checkbox"/> 3. Nutmeg <input type="checkbox"/> 4. Cinnamon <input type="checkbox"/> 5. Cloves <input type="checkbox"/> 6. Saffron <input type="checkbox"/> 7. Turmeric <input type="checkbox"/> 8. Ginger <input type="checkbox"/> 9. Fennel <input type="checkbox"/> 10. Another <input type="checkbox"/></p> | |
| 48 | <p>Do personnel use medicinal herbs?</p> <p>1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/></p> | |
| 49 | <p>If, yes, which of the following medicinal herbs used:</p> <p>1. Sage 2. Fenugreek 3. Parsley 4. Cardamom 5. Thyme 6. Licorice 7. Basil 8. Another</p> | |
| 50 | <p>If used as medicine, in which type of disease(s)?</p> <p>1. Diverticulitis <input type="checkbox"/> 2. Osteoarthritis <input type="checkbox"/> 3. Colitis <input type="checkbox"/> 4. Liver <input type="checkbox"/> 5. Cancer <input type="checkbox"/> 6. Gout <input type="checkbox"/> 7. High cholesterol <input type="checkbox"/> 8. Gallstones <input type="checkbox"/> 9. Ulcers <input type="checkbox"/> 10. Diabetes <input type="checkbox"/> 11. Arthritis <input type="checkbox"/> 12. Anemia <input type="checkbox"/> 13. Hypertension <input type="checkbox"/> 14. Atherosclerosis <input type="checkbox"/> 15. Gout <input type="checkbox"/></p> | |
| M | Selection of food items: | |
| 51 | <p>The predominant food items used due to:</p> <p>1. Cultural factors <input type="checkbox"/> 2. Functional factors <input type="checkbox"/> 3. Medicinal factors <input type="checkbox"/> 4. Availability <input type="checkbox"/> 5. Seasonality <input type="checkbox"/> 6. Price <input type="checkbox"/></p> | |
| N | Cooking ware: | |
| 52 | <p>Guidelines used when choosing cooking ware:</p> <p>1. Heat conductivity <input type="checkbox"/> 2. Durability <input type="checkbox"/> 3. Reactivity <input type="checkbox"/> 4. Maintenance <input type="checkbox"/> 5. All of the above <input type="checkbox"/> 6. Another <input type="checkbox"/></p> | |

| Code | Food Service and quality Control in Hospital | Observations |
|----------|---|--------------|
| N | Cooking ware: (continue) | |
| 53 | Types of cooking ware used: 1. Stainless steel <input type="checkbox"/> 2. Cast iron <input type="checkbox"/> 3. Aluminum <input type="checkbox"/> 4. Glass <input type="checkbox"/> 5. Nonstick <input type="checkbox"/> 6. Multi-ply <input type="checkbox"/> | |
| 54 | Please comment on cooking and methods of evaluation: | |



B- Diet Order Evaluation

| Code | Hospital diet order evaluation served to patients | Notes |
|------|--|-------|
| 55 | Who described the diet order? 1. Dietitian <input type="checkbox"/> 2. Physician <input type="checkbox"/> 3. Other <input type="checkbox"/> | |
| 56 | Can dietitian modify diet order? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Sometimes <input type="checkbox"/> | |
| 57 | Is hospital menu appropriate for patient requirements? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 58 | Does dietitian follow diet order? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Sometimes <input type="checkbox"/> | |
| 59 | Is diet order appropriate for the case? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 60 | Does the served meal suitable for diet order? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 61 | Is the served meal proper for the patient's disease? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 62 | Your Comments: | |



C- Patient Meal Satisfaction

| Code | Patient Meal Satisfaction | Notes |
|---------------------------------------|--|-------|
| 63 | Do you eat served meal? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 64 | If you don't eat served meal, what are the reasons for it? 1. quantity of meal <input type="checkbox"/> 2. quality of meal <input type="checkbox"/> 3. Time of meal <input type="checkbox"/> 4. Appearance of meal <input type="checkbox"/> | |
| 65 | The taste/flavor of your food was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Acceptable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 66 | The overall appearance of your meal tray was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Acceptable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 67 | The variety of foods you received was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Reasonable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| The temperature of your: | | |
| 68 | Hot food was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Suitable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 69 | Cold food was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Acceptable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 70 | Friendliness and service of staff was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Satisfactory <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 71 | The size of portions was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Reasonable <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 72 | Time to get rid of food was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Satisfactory <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 73 | The cleanliness of fork, spoon and dishes served was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Satisfactory <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |

| Code | Patient Meal Satisfaction | Notes |
|------|--|-------|
| 74 | Quality of foods services in this hospital was: 1. Very good <input type="checkbox"/> 2. Good <input type="checkbox"/> 3. Satisfactory <input type="checkbox"/> 4. Needs improvement <input type="checkbox"/> | |
| 75 | Are you on a special diet? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 76 | Have we met your cultural food preferences? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 77 | Have you been receiving same meals for? 1. 1-7 Days <input type="checkbox"/> 2. 8-14 Days <input type="checkbox"/> 3. >15 days <input type="checkbox"/> | |
| 78 | Does dietitian visit you? 1. Daily <input type="checkbox"/> 2. Every 3 days <input type="checkbox"/> 3. Every 5 days <input type="checkbox"/> 4. Weekly <input type="checkbox"/> 5. Does not visit <input type="checkbox"/> | |
| 79 | During your stay at the hospital, what has been your favorite meal? 1. Breakfast <input type="checkbox"/> 2. Lunch <input type="checkbox"/> 3. Supper(Dinner) <input type="checkbox"/> 4. Snacks <input type="checkbox"/> | |
| 80 | Can you say that this hospital serves more quality foods services compared to other hospital? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> | |
| 81 | During your stay at the hospital, what has been your least favorite food or meal? 1. 2. 3. 4. 5. 6. | |
| 82 | Do you have any suggestions as to how food services can be improved? 1. 2. 3. 4. 5. 6. | |
| 83 | Please give your comments on patient meal satisfaction. | |



EVALUATION OF DIETS

| Code | Evaluation of Special Diets | Notes |
|------|---|-------|
| 84 | Identify evaluation techniques of special diets in terms of recommended dietary allowances: | |
| 85 | Identify evaluation techniques of special diets in terms of dietary modifications: | |
| 86 | Identify evaluation techniques of special diets in terms of food allowed and not allowed (prohibited). | |

Food Services and quality Control Logbook

Food Safety in Hospitals

1. Receiving:

| Food inspection | | | | | | | | | | |
|---------------------|----------------------------------|-----|--------|-----|---------|-----|-------|-----|-----------------|-------------|
| Hospital name | | | | | | | | | | |
| Food item | Evaluation of sensory properties | | | | | | | | Production date | Expiry date |
| | appearance | | colour | | texture | | smell | | | |
| | Good | Bad | Good | Bad | Good | Bad | Good | Bad | | |
| | | | | | | | | | | |
| Observation: | | | | | | | | | | |
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2. Storage:

| Food/raw material store | | | Temperature (C°) | Humidity (%) | Is there any food with Expiry date | Ventilation adequacy | | | Are there spaces between the pallets of food (Y/N) | Hygienic quality of store | | |
|-------------------------|-------------|--------------|------------------|--------------|------------------------------------|----------------------|--------|-----|--|---------------------------|--------|-----|
| Dry food | Frozen food | Chilled food | | | | High | Medium | Low | | High | medium | Low |
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3. Preparation of meals:

| Cleaning of food surfaces (high/medium/low) | Are there detergent, disinfectant or pesticides in food preparation area (Y/N) | Are there separate boards for cutting raw foods (Y/N) | Cleaning of utensils (high/medium/low) | Cooking temperature (C°) | Sources of contamination |
|--|---|--|--|--------------------------|--------------------------|
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4. Meal service:

| Food items | Transportation and distribution of meal trays | | | | | Food | |
|------------|---|--------|-----|---|---|--------------------------|------------------------|
| | Cleanliness of transport trolleys | | | Time period of transportation and distribution | | Keeps cold foods as cold | Keeps hot foods as hot |
| | High | medium | Low | Immediate delivery of the meal to the patient (Y/N) | Delayed delivery of the meal to the patient (Y/N) | | |
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5. Sanitation facility:

| Waste disposal from food services area | | | |
|--|---|---|--|
| Methods | How frequently used (weekly/ daily/ hourly) | Waste containers are provided with lids (Y/N) | Waste containers' areas/rooms are kept in hygienic condition (Y/N) |
| 1. Food handlers | | | |
| 2. Food waste | | | |
| 3. Chemical waste | | | |
| 4. Garbage removing | | | |
| 5. Others (specify): | | | |
| | | | |
| | | | |
| What protective measures were taken for insects and rodents eradication, etc. | | | |
| Methods | | How frequently used | |
| | | | |
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| | | | |
| Routine for washing, rinsing or sanitizing food contact surfaces and the utensils | | | |
| Methods | | How frequently used | |
| | | | |
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Hospital implement HACCP Yes No

If answer is Yes, please fill the following table

HACCP FORM

MENU ITEMS/PRODUCTS:

| PROCESS STEPS | HAZARD(S) | CCPs (Y/N) | CRITICAL LIMITS | MONITORING | CORRECTIVE ACTIONS | VERIFICATION |
|---------------|-----------|------------|-----------------|------------|--------------------|--------------|
| RECIEVE | | | | | | |
| STORE | | | | | | |
| PREPARE | | | | | | |
| COOK | | | | | | |
| REHEAT | | | | | | |
| HOLD | | | | | | |
| SERVE | | | | | | |

Nutrition Care Process Manual



Nutrition Care Process (NCP) Screening Logbook

Intern Personal Information

| | |
|-------------------------|--|
| Intern Name | |
| University ID | |
| Name of Hospital | |
| Email Address | |
| Date of Training | |
| Week Order | |
| Case Number | |



Log Book Instructions

I. Guidelines on documenting:

1. Be legible
2. Use only approved or standard abbreviations
3. Do not eliminate anything from the medical record.
4. Do not use of correction fluid anywhere in the record.
5. Nutrition reports should be submitted in time.
6. Do not insert back dated notes into the chart. If necessary, write an addendum and date it.
7. Do not make uncomplimentary remarks about patients; remember that patients and courts can access the medical record.
8. Complete the following record in the order of NCP steps.

II. The NCP steps according to A.D.I.M.E. format:

- Step 1: Nutrition assessment
- Step 2: Nutrition diagnosis
- Step 3: Nutrition intervention
- Step 4: Nutrition monitoring and evaluation

III. Essential information for using this logbook:

- The logbook (daily training record) has been designed to enable interns to record necessary aspects of their training experience during the internship program, at any training site.
- Interns are responsible for maintaining up to date logbook at all times.

IV. Confidentiality:

1. You must not identify patients by name.
2. Cases should be recorded by hospital number and/or patients' initials.
3. Total grade of the fully completed logbook is 250 marks.
4. The logbook should be completed/ filled by using computer. No hand written logbook will be accepted.

Step 1: Nutrition Assessment (114 marks)

1. Patient Information (18 marks)

| A. ADMISSION DATA: | |
|--|--|
| 1. File no: | |
| 2. Section name: | 3. Bed no: |
| 4. Age: | 5. Gender: M <input type="checkbox"/> F <input type="checkbox"/> |
| 6. The main reason for admission (write name of disease): | |
| 7. Duration of disease(s): | |
| 8. Date of admission: | |
| 9. Area of living: City <input type="checkbox"/> Rural area or villages <input type="checkbox"/> Small towns <input type="checkbox"/> Refused to answer <input type="checkbox"/> | |
| 10. Family structure: Live alone <input type="checkbox"/> With wife only <input type="checkbox"/> 3 members <input type="checkbox"/> >3 members <input type="checkbox"/> Refused to answer <input type="checkbox"/> | |
| 11. Education level attained: Not educated <input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> Intermediate <input type="checkbox"/> University <input type="checkbox"/> Master or PhD <input type="checkbox"/> Refused to answer <input type="checkbox"/> | |
| 12. Income level: <input type="checkbox"/> Low income (less than 2000 SR) <input type="checkbox"/> Mid-income (>2000- less than 5000 SR) <input type="checkbox"/> High income (≥5000 and above) <input type="checkbox"/> Refused to answer | |
| 13. Main language spoken at home: Arabic <input type="checkbox"/> Other (specify: _____) | |
| 14. Disability Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, specify: _____ | |
| 15. Do you have a car at home: Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 16. Do you smoke cigarettes? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, how many/day? _____ How often? _____ | |
| 17. Type of drinking water: Water pipe <input type="checkbox"/> Desalinated water <input type="checkbox"/> Bottled water Well water <input type="checkbox"/> Other:(specify)_____ Refused to answer <input type="checkbox"/> | |
| Comments: (how can you use this information for nutritional care process?) | |

2. Medical History and Health Problems (6 marks)

I. Reason for seeking medical care: (main complains, symptoms or disease)

- Nausea Vomiting Heartburn
 Constipation
 Diarrhea Colon disturbance Anemia
 Hypertension
 Diabetes mellitus Renal diseases Cardiovascular diseases
 Disturbance in periods' Food allergy
 Others: (specify) _____

II. Surgeries (in the past):

- | | | |
|------------------------------------|------------------------------|-----------------------------|
| 1. History of operations | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. GIT resection or reconstitution | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Organ transplants | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4. Postoperative infections | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 5. Slow healing wounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 6. Fistulas or ostomies | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 7. Not applicable | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

III. Psychiatric history:

- Depression Eating disorders Psychosis
 Others: (specify)

Without problems.....

IV. Medical therapy:

- Dialysis Chemotherapy Radiation therapy
 Mechanical ventilation Medication therapy Not applicable
 Others: (specify)

V. Medications:

List medications prescribed by a doctor below (including nutritional supplementation)? Also complete the following table which includes names of drugs, dose, frequency and route of admission and drug-nutrient interactions?

.....

.....

.....

.....

.....



| No. | Name of the drug (or active compound) | Drug usage (dose, frequency and route of admission) | Drug-nutrient interaction (with side effects if present) |
|---|--|--|---|
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| <p style="text-align: right;">Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | | | |



3. Laboratory Analyses (40 marks)

| | The tests/variables | Value (unit) | Normal range (unit) |
|----------|--|--------------|---------------------|
| a | Complete blood counts (CBC): | | |
| 1 | White blood cells (WBC) | | |
| 2 | Red blood cells (RBC) | | |
| 3 | Hemoglobin (HGB) | | |
| 4 | Hematocrit (HCT) | | |
| 5 | Mean corpuscular volume (MCV) | | |
| 6 | Mean corpuscular hemoglobin (MCH) | | |
| 7 | Mean corpuscular hemoglobin concentration (MCHC) | | |
| 8 | Platelets count (PLT) | | |
| B | Liver function: | | |
| 1 | Aspartate aminotransferase (AST) | | |
| 2 | Alanine aminotransferase (ALT) | | |
| 3 | Alkaline phosphatase | | |
| 4 | Albumin | | |
| 5 | Total protein | | |
| c | Blood glucose: | | |
| 1 | Fasting | | |
| 2 | Postprandial | | |
| d | Kidney functions test: | | |
| 1 | Blood urea nitrogen (BUN) | | |
| 2 | Creatinine | | |
| 3 | Uric acid | | |
| e | Lipid profile: | | |
| 1 | Total cholesterol | | |
| 2 | Low-density lipoprotein (LDL) | | |
| 3 | High-density lipoprotein (HDL) | | |
| 4 | Triglyceride (TG) | | |
| 5 | Total lipids | | |

| | The test/variable | Value (unit) | Normal range (unit) |
|----------|--|--------------|---------------------|
| f | Other biochemical tests: | | |
| 1 | Sodium | | |
| 2 | Potassium | | |
| 3 | Calcium | | |
| 4 | Phosphors | | |
| 5 | Iron | | |
| 6 | Pre-albumin | | |
| 7 | C-reactive protein | | |
| 8 | Transferrin | | |
| g | Add results of other tests if necessary (e.g. stool, urine, microbiological cultures, etc.) | | |
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Please comment on the laboratory findings from the point of nutritional care according to needs of the patient’s condition and disease?

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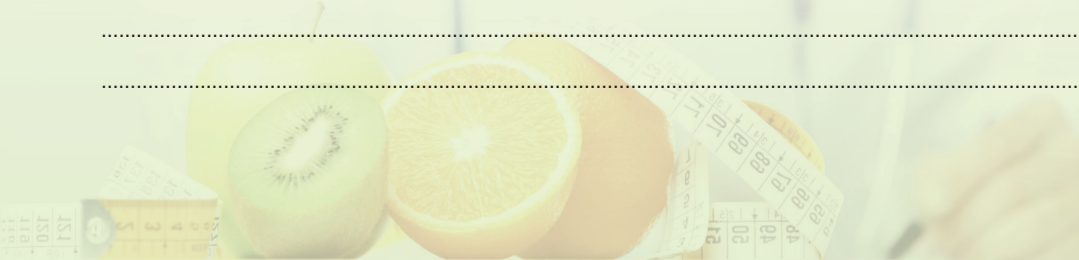
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4. Physical Examination and Appearance (13 marks)

| a. Performance | b. Skeletal and body composition | c. Skin |
|--|---|--|
| 1. Ability to communicate Yes <input type="checkbox"/> No <input type="checkbox"/> | 1. Genu valgum Yes <input type="checkbox"/> No <input type="checkbox"/> CM* <input type="checkbox"/> | 1. Pallor (pale skin color) Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 2. Conscientious Yes <input type="checkbox"/> No <input type="checkbox"/> | 2. Genu varum Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 2. Scaly dermatitis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 3. Restlessness Yes <input type="checkbox"/> No <input type="checkbox"/> | 3. Paralysis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 3. Follicular hyperkeratosis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 4. Fine motor skills Yes <input type="checkbox"/> No <input type="checkbox"/> | 4. Amputations Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 4. Pellagra Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 5. Dementia Yes <input type="checkbox"/> No <input type="checkbox"/> | 5. Muscle wasting Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 5. Dermatitis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 6. Difficulty in walking Yes <input type="checkbox"/> No <input type="checkbox"/> | 6. Shortened stature Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 6. Skin eruptions Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 7. Unsteady movement Yes <input type="checkbox"/> No <input type="checkbox"/> | 7. Ankle edema (enlargement) Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 7. Bruisability (skin bruises) Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 8. Encephalopathy Yes <input type="checkbox"/> No <input type="checkbox"/> | 8. Ascites Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 8. Petechia Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| | 9. Goiter Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | |
| d. Hair | e. Nail | f. Eyes |
| 1. Dry, dull hair Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 1. Abnormal nail shape or color Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 1. Xerophthalmia Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| 2. Corkscrew hair Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 2. Koilonychias (spooning of fingernails) Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 2. Night blindness Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| | 3. Periungual hemorrhage Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 3. Changes in vision Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> |
| g. Mouth | h. Respiration | i. Feeding |
| 1. Bleeding gums (Gingival Hemorrhage) Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 1. Breathlessness Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 1. Enteral feeding tubing or device Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 2. Cheilosis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 2. Palpitation Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | 2. Parenteral feeding tubing or catheters Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 3. Sore tongue Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | | |
| 4. Smooth tongue Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | | |
| 5. Dental caries Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | | |
| 6. Glossitis Yes <input type="checkbox"/> No <input type="checkbox"/> CM <input type="checkbox"/> | | |
| Comments: | | |
| | | |
| | | |

* CM = cannot be measured

Vital signs: (See appendix no. 1 for normal values for physical examination)

BP Mm Hg; **Temperature**°C; Pulse...../ min



5. Anthropometric Measurements (7 marks)

- **Current weight:** kg or use alternative methods to determine weight:
 - Knee calf (cm)
 - Knee height..... (cm)
- **Height:** cm or use alternative methods to determine height:
 - Arm span..... (cm) or
 - Ulna length..... (cm)
- **BMI:** kg/m² (or MUAMC value from above)
- **Triceps skin fold (TSF):** (mm)
- **Arm circumference (AC):** (cm)

Weight History:

- Has the patient gained weight recently?
 - No Not sure Yes
- Has the patient lost weight recently?
 - No Not sure Yes
- If yes, please mention for how long this weight changes occurred?
..... days.

6. Dietary Assessment and History of Intake (10 marks)

- Usual food intake: normal less nothing by mouth at all
- Complete a 24hr-Recall sheet for the patient (ask at the end of the patient meeting)
Please see appendix no.6 and add it to the main body NOT in the appendix.

- Type of diet ordered by physician in the hospital.....
- Please comment and evaluate hospital diet order that has been served to the patient (taking care of the symptoms and diagnosis):

.....

.....

.....

.....



7. Energy and Nutrients Requirements Calculation (20 marks)

a. Desired and adjusted body weight

- Desired weight (kg) (See appendix no. 2)
- Adjusted body weight (ABW) for obese patients?

(Note that ideal weight = height in cm – 100)

According to following equation for both male and female:

$$ABW = 0.25 \times (\text{actual weight} - \text{ideal weight}) + \text{ideal weight}$$

$$ABW = 0.25 \times (\text{..... Kg} - \text{..... Kg}) + \text{.....Kg}$$

b. Total calories requirements

(See appendix no. 3 for Harris-Benedict equation and other required factors)

Basal metabolic rate (BMR) (write calculations according to gender in the table below)

| | |
|---|---|
| Men: $66.5 + [(13.8 \times \text{weight/kg}) + (5 \times \text{height/cm}) - (6.8 \times \text{age})]$ | Women: $655 + [(9.6 \times \text{weight/kg}) + (1.8 \times \text{height/cm}) - (4.7 \times \text{age})]$ |
| | |

1. **BMR** = Kcal
2. **Injury factor (IF) = Injury (stress) factor (Appendix no. 3) X BMR (Step no. 1)**
IF = X = **Kcal**
3. **Thermal effect of food (TEF) = BMR (Step no. 1) X 0.1**
TEF = **Kcal X 0.1 = Kcal**
4. **Total energy requirements = [IF (Step 2)) + TEF (Step 3)]**
Total energy requirements = [..... +]=
..... Kcal

c. Protein needs (..... %) =g/day

d. Carbohydrate needs (..... %) =g/day

e. Total fat requirement (..... %) =g/day

f. Water or fluid needs = ml/day



Step 2: Nutritional Diagnosis (20 marks)

See appendix no. 4 for defining criteria for nutritional diagnosis

See appendix no. 5 for list of possible nutritional diagnosis

1) Please provide nutritional diagnosis for the current patient:

Problem:

.....
.....
.....
.....

Etiology:

.....
.....
.....
.....

Signs/Symptoms:

.....
.....
.....
.....
.....

2) Please state possible nutritional diagnosis:

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Step 3: Nutrition Intervention or Dietary Management (26 marks)

Nutrition Plan:

a. What is/are dietary modification(s) and recommendations for this patient (based on your nutritional diagnosis and the medical problem)? (6 marks)

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**b. What is your main nutritional outcome for this specific patient? (5 marks)
(i.e., your expectations as training covered only in one day visit)**

e.g., improve health conditions, food intake or physical activity or change the food recommended according to the disease.

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c. Nutrition education and nutrition counseling approach (15 marks)

- What you propose for patient education?

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.....

- **Choose theory of nutrition counseling as appropriate to the current patient:**

- ABC theory**
- Patient-centered model**
- Trans-theoretical or stage of change model**
- Others (specify):**

- **Please describe the following:**

- ✓ What are your reasons for selecting this theory?

.....
.....
.....
.....
.....

- ✓ How can you implement this theory according to your case?

.....
.....
.....
.....
.....



Step 4: Monitoring and Evaluation Plan (90 marks)

1. Please fill the most important parameters that should be monitored according to your case, and how often to be measured?

| No | Parameter | Critical indicators | Frequencies |
|----|--|---------------------|-------------|
| 1 | Anthropometric measures: | | |
| | a. Height | | |
| | b. Weight | | |
| | c. Others | | |
| 2 | Signs/symptoms of edema | | |
| 3 | Signs/symptoms of dehydration | | |
| 4 | Laboratory results: | | |
| | a. Glucose | | |
| | b. Total cholesterol | | |
| | c. Others | | |
| 5 | Drug-nutrient interaction consequences | | |
| 6 | Stool frequency and consistency (Please ask the patient) | | |
| 7 | Enteral or parenteral nutrition including: | | |
| | a. Fluid intake/output | | |
| | b. Adequacy of enteral intake | | |
| | c. Gastric residual | | |
| | d. Serum electrolytes | | |
| | e. Respiratory | | |
| 8 | Others: | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. From previous table, please write the reading for the follow-up schedule for each parameter in the following appropriate tables.

Table 2.1: Reading of the parameters that should be monitored daily

| Parameter Date | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|-------------------|--------|--------|---------|-----------|----------|--------|----------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Table 2.2: Reading of the parameters that should be monitored more than once a week

| Parameter Date | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
|-------------------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

Table 2.3: Reading of the parameters that should be monitored monthly

| Parameter Date | Admission | Month 1 | Month 2 | Month 3 | Month 4 |
|-------------------|-----------|---------|---------|---------|---------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



3. Comments on progress:

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4. From the results of above tables, was your NCP plan successful? Yes No

5. If answer is no, determine the weak steps of your NCP plan, and re-plan this case and repeat the monitoring and evaluation steps.

Weak Steps:

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Patient's Nutrition Care Evaluation

NOTE: Please use scale 1 to 5 for intern's evaluation:

Poor=1 (<60%), Fair=2 (60-70%), Intermediate =3 (71-80%),
Good=4 (81-90%), Excellent=5 (90-100%)

| Item | Score | Evaluation grade |
|------------------------------|--|------------------|
| Assessment | Patient medical and surgical histories reviewed and documented. | |
| | Medication with potential food/drug interaction is assessed and documented. | |
| | Relevant laboratory values are noted and assessed for age/gender. | |
| | Height and weight are documented. | |
| | Subjective nutritional data are obtained and documented. | |
| | Nutritional requirements for energy/ protein/ fluid are assessed and calculated based on established standards for age/gender. | |
| | Appropriate nutritional priority and risk identified. | |
| Average | | |
| Nutritional diagnosis | Nutritional diagnosis made appropriately. | |
| | Correct PES statement written (problem-etiology-signs/ symptoms). | |
| | Average | |
| Intervention | Nutrition care plan established which includes patient/ family goals and objectives. | |
| | Meal plan established and implemented when needed. | |
| | Nutrition recommendations are appropriate for the patient condition. | |
| | Education assessment and plans are completed when appropriate. | |
| | Identified preferred method of learning (visual - auditory - reading-hands on). | |
| | When education is provided, patient/family understanding is documented. | |
| Average | | |
| Monitoring | Outpatient nutrition clinic referral completed. | |
| | Nutrition recommendations/interventions are appropriate based on assessed data of disease status, medical goals of therapy and biochemical parameters. | |
| | Documentation completed for all steps. | |
| | Follow up, re-evaluate nutritional problems and plan with supporting documentation. | |
| Average | | |
| Overall Average | | |
| Overall grade | | |

Evaluation result (Overall Average) = (1-2) Re-evaluation
Evaluation result (Overall Average) = (3-5) Accepted

Appendices



Appendices

- Appendix 1:** Normal values for physical examination
- Appendix 2:** quick estimate of desirable body weight
- Appendix 3:** Calculation of energy and nutrients requirements
- Appendix 4:** Criteria for nutritional diagnosis
- Appendix 5:** Possible nutritional diagnosis
- Appendix 6:** 24 hour-recall sheet
- Appendix 7:** Food exchanges for diet planning
- Appendix 8:** Distribution of food exchanges for breakfast, lunch and dinner meals

- Appendix 9:** Daily food plan
- Appendix 10:** Frequency of monitoring of specific parameters

Appendix 1

Normal Values for physical examination

Vital signs

1. Temperature

Rectal: C = 37.6°/ F=99.6°

Oral: C = 37°/ F=98.6° ($\pm 1^\circ$)

Axilla: C = 37.4°/ F=99.3°

2. Blood pressure: average 120/80 mmHg

3. Heart rate (beats per minute)

| Age | At rest awake | At rest asleep | Exercise or fever |
|--------------------|---------------|----------------|-------------------|
| Newborn | 100-180 | 80-160 | ≤ 220 |
| 1 week-3 months | 100-220 | 80-200 | ≤ 220 |
| 3 months – 2 years | 80-150 | 70-120 | ≤ 200 |
| 2-10 years | 70-110 | 60-90 | ≤ 200 |
| 11 years - adult | 55-90 | 50-90 | ≤ 200 |



quick estimate of desirable body weight

| No | Men | Women |
|----|--|--|
| 1 | For first 5 feet, consider 106 pounds a reasonable weight. For each inch over 5 feet, add 6 pounds. | For first 5 feet, consider 100 pounds a reasonable weight. For each inch over 5 feet, add 5 pounds. |
| 2 | For each inch less than 5 feet, subtract 6 pounds | For each inch less than 5 feet, subtract 5 pounds. |
| 3 | Add 10% for a large-framed individual; subtract 10% for a small-framed individual | Add 10% for a large-framed individual; subtract 10% for a small-framed individual. |
| 4 | Example: for a man 5 feet 8 inches tall (medium frame), a desirable weight would be 154 pounds (106 lb + 48 = 154 lb). | Example: for a man 5 feet 6 inches tall (medium frame), a desirable weight would be 130 pounds (100 lb + 30 = 130 lb). |

Hint:

- Use the following equivalents for your final calculations:
 $1 \text{ Kg} = 2.2 \text{ pounds}$
 $1 \text{ pound} = 0.45 \text{ Kg}$
 $1 \text{ feet} = 30.5 \text{ cm} = 0.31 \text{ m}$

Appendix 3

Calculation of Energy and Nutrients Requirements

- **HARRIS-BENEDICT** (Basal Energy Expenditure)
Men: $66.5 + [(13.8 \times \text{wt/kg}) + (5 \times \text{ht/cm}) - (6.8 \times \text{age})]$
Women: $655 + [(9.6 \times \text{wt/kg}) + (1.8 \times \text{ht/cm}) - (4.7 \times \text{age})]$
- **Activity/injury factor**
 Multiply resting energy expenditure (REE) or basal energy expenditure (BEE) (from above) with activity/injury factor

A. Stress / injury factors:

| Parameter | Stress or injury factor |
|---------------------------------|-----------------------------|
| None | 1 |
| Mild infection | 1.2 X BEE |
| Moderate infection | 1.4 X BEE |
| Sever infection | 1.6 X BEE |
| Elective surgery | 1 – 1.1 X BEE |
| Minor surgery | 1.1 X BEE |
| Major surgery | 1.2 X BEE |
| Skeletal trauma | 1.35 X BEE |
| Head injury | 1.6 X BEE |
| Burns (40% body surface area) | 1.5 X BEE |
| Burns (100% body surface area) | 1.9 X BEE |
| Multiple / long bone fraction | 1.1 – 1.3 X BEE |
| Peritonitis | 1.05 – 1.25 X BEE |
| Infection with trauma | 1.3 – 1.55 X BEE |
| Sepsis | 1.2 – 1.4 X BEE |
| Closed head injury | 1.3 X BEE |
| Cancer | 1.1 – 1.45 X BEE |
| Fever | 1.2 x BEE per 1 C over 37°C |

B. Activity factor:

| Parameter | Activity factor |
|---|-----------------|
| None | 1 |
| Confined to bed | 1.2 X BEE |
| Out of bed | 1.3 X BEE |
| Chair or bed – bound | 1.2 X BEE |
| Work while seated with little movement and little or no leisure activity. | 1.4 – 1.5 X BEE |
| Work while seated with requirement to move but little strenuous leisure activity. | 1.6 – 1.7 X BEE |
| Standing work | 1.8 – 1.9 X BEE |
| Strenuous work or highly active leisure activity. | 2 – 2.4 X BEE |

C. PROTEIN NEEDS:

| Specific disease | Protein needs |
|----------------------------------|--|
| Hepatic encephalopathy | 0.4 g/kg/body weight advance as tolerated |
| Renal disease (without dialysis) | 0.6-0.8 g/kg/body weight |
| Normal maintenance | 0.8-1.0 g/kg/body weight |
| Renal disease (with dialysis) | 1.2-1.5 g/kg/body weight |
| Repletion/moderate stress weight | 1.0-1.5 g/kg/body |
| Severely stressed | 2.0-2.5 g/kg/body weight |

Hint: If you know the weight in pounds, use 1/2 of the amount recommended for weights in kilograms.

Example: Caloric need is 20 kcal/kg, it will be ~10 kcal/pound.

D. TOTAL WATER/ FLUID NEEDS:

Average 30-32 ml/kg
1.5 ml per kcal/day

Appendix 4

Criteria for Nutritional Diagnosis

This is different from medical diagnosis.

1. Nutritional diagnosis means the identification of a specific nutritional problem that dietetic practitioners will treat.
2. Categories of nutritional diagnoses:
 - a. Intake
 - b. Clinical
 - c. Behavioral
3. Summarized as PES Statement:
 - P: Problem
 - E: Etiology
 - S: Signs/symptoms (S/S)

4. Example of PES statement:

Problem: Excessive fat intake.

Etiology: Consumption of fast foods provided by family members 2-3 times/week.

Signs/symptoms: 10% weight gain in 90 days and increase in serum cholesterol to 230 mg/dl.

Nutritional diagnosis: This was due to excessive fat intake related to consumption of fast foods provided by the family members 2-3 times /week, which is indicated by increase in cholesterol level.

Note: If the diagnosis is written as "**Obesity**", it will be considered as medical diagnosis, not nutritional diagnosis.

| | |
|---|--|
| <p>Domain: Clinical Class: Functional balance Swallowing difficulty Chewing (masticator) difficulty Breastfeeding difficulty Altered gastrointestinal function Class: Biochemical balance Impaired nutrient utilization Altered nutrition-related laboratory values Food medication interaction Altered medical status (hyper) Altered medical status (hypo) Class: Weight balance Underweight Involuntary weight loss Overweight / obesity Involuntary weight gain</p> | <p>Disordered eating pattern Low adherence to nutrition-related recommendations Undesirable food choices Class: Physical and environmental balance Physical activity Excessive physical activity Inability to manage physical self-care Impaired ability to prepare foods/meals Poor nutrition quality of life Self-feeding difficulty Class: Food safety access Intake of unsafe food Limited access to food</p> |
| <p>Domain: Behavioral-Environmental Class: Knowledge and believe Food and nutrition-related knowledge deficit Harmful beliefs/attitudes about food and nutrition-related topics Not ready for diet/lifestyle change Evident protein-energy malnutrition Inadequate protein-energy intake Decrease nutrient (specify) needs Imbalance of nutrients Class: Oral intake balance Inadequate oral food/beverage intake Excessive oral food/beverage intake Class: Fat and cholesterol balance Inadequate fat intake Excessive fat intake Inappropriate intake of food fat (specify) Class: Protein balance Inadequate protein intake Excessive protein intake Inappropriate intake of amino acids (specify) Class: Carbohydrate and fiber balance Inadequate carbohydrate intake Excessive carbohydrate intake Inappropriate intake of types of carbohydrate (specify) Inconsistent carbohydrate intake Self-monitoring deficit</p> | <p>Domain: Intake Class: Caloric energy balance Increased energy needs Decreased energy needs Inadequate energy intake Excessive energy intake Class: Nutrient intake balance Increased nutrient (specify) needs Inadequate fiber intake Excessive fiber intake Class: Vitamin intake balance Inadequate vitamin intake (specify) Excessive vitamin intake (specify) Class: Mineral intake balance Inadequate mineral intake (specify) Excessive mineral intake Class: Fluid intake balance Inadequate fluid intake Excessive fluid intake Class: Bioactive substances balance Inadequate bioactive substance intake Excessive bioactive substance intake Excessive alcohol intake Class: Nutrition support Inadequate intake from enteral/parenteral nutrition Excessive intake from enteral/parenteral nutrition Inappropriate infusion of enteral/ parenteral nutrition</p> |

Possible Nutritional Diagnosis

Appendix 6

24 Hour-Recall Sheet

| Meals | Type of foods | Prepared | quantity (grams) |
|------------------------------------|---------------|----------|------------------|
| Before Breakfast | | | |
| Breakfast | | | |
| Between breakfast and lunch | | | |
| Lunch | | | |



| Meals | Type of foods | Prepared | quantity (grams) |
|---------------------------------|---------------|----------|------------------|
| Between lunch and dinner | | | |
| Dinner | | | |
| After Dinner | | | |



Appendix 7

Food Exchanges for Diet Planning

| Exchange item | No. of food exchange | Carbohydrate (grams) | Protein (grams) | Fat (grams) | total calories | Sodium (mg) | Fiber (grams) | Cholesterol (mg) |
|--------------------------------|----------------------|----------------------|-----------------|-------------|----------------|-------------|---------------|------------------|
| Milk | | | | | | | | |
| Fat free, low fat | | 12 | 8 | 0.3 | 90 | | | |
| Reduced fat | | 12 | 8 | 5 | 120 | | | |
| Whole | | 12 | 8 | 8 | 150 | | | |
| Vegetable | | 5 | 2 | -- | 25 | | | |
| Fruit | | 15 | -- | -- | 60 | | | |
| Starch/Bread | | 15 | 3 | 0.1 | 80 | | | |
| Meat | | | | | | | | |
| Very lean | | -- | 7 | 1 | 35 | | | |
| Lean | | -- | 7 | 3 | 55 | | | |
| Medium-fat | | -- | 7 | 5 | 75 | | | |
| High-fat | | -- | 7 | 8 | 100 | | | |
| Fat | | -- | -- | 5 | 45 | | | |
| Total food intake | | | | | | | | |
| Daily requirements | | | | | | | | |
| % of daily requirements | | | | | | | | |

Appendix 8

Distribution of Food Exchanges for Breakfast, Lunch and Dinner Meals

| Food | Numbers of Exchanges for meals | Meals | quantity | |
|---|--------------------------------|-------|----------|------|
| | | | (Grams) | Size |
| Milk Starchy vegetable Non-starchy vegetable Fruit Starch/bread Meat Fat | Breakfast | | | |
| Milk Starchy vegetable Non-starchy vegetable Fruit Starch/bread Meat Fat | Lunch | | | |
| Milk Starchy vegetable Non-starchy vegetable Fruit Starch/bread Meat Fat | Dinner | | | |



Appendix 9

Daily Food Plan

File No. _____ Age: _____ Gender: M F

Patient case: _____

Diet: Regular diet:

Special diet:

| Meals | Time of serving | Diets | quantity | |
|-----------------|-----------------|-------|----------|------|
| | | | (Grams) | Size |
| Breakfast | | | | |
| After Breakfast | | | | |
| Lunch | | | | |
| After Lunch | | | | |
| Dinner | | | | |

Frequency of Monitoring of Specific Parameters

| Indicators | Frequencies |
|--|----------------------------|
| Weight | At least 3 times/week |
| Signs and symptoms of edema | Daily |
| Signs and symptoms of dehydration | Daily |
| Fluid intake/output | Daily |
| Adequacy of enteral intake to check vital signs | At least 2 times /week |
| Nitrogen balance: becoming less common | Every week, if appropriate |
| Gastric residual | Every 4 hours |



UMM AL QURA UNIVERSITY
Faculty of Applied Medical Sciences
Department of Clinical Nutrition
Clinical Nutrition Internship

Form #1

Evaluation of Intern by Clinical Nutritionist

Instructions to Evaluator: The columns indicate numerical grades (<60 to 100). Please indicate, by assigning a **numerical grade within one column**, the level of competence at which the intern performed in each category while on rotation in your hospital. If you feel a category is not applicable to your clinical situation, please mark "N/A".

| Evaluation Parameters | Excellent | Very Good | Good | Average | Below average |
|--|-----------|-----------|-------|---------|---------------|
| | 90-100 | 81-90 | 71-80 | 60-70 | <60 |
| General Competences | | | | | |
| 1. Follow hospital regulations and codes. | | | | | |
| 2. Punctuality and initiative for work. | | | | | |
| 3. Adhere to safety rules. | | | | | |
| 4. Exhibit verbal communication skills. | | | | | |
| 5. Work as a team member. | | | | | |
| Clinical Nutrition Competencies | | | | | |
| 1. Assessment of patient nutritional needs (review of medical and diet history, physical measurements, laboratory tests, etc.) | | | | | |
| 2. Ability to prepare a diet plan according to patient health conditions. | | | | | |
| 3. Capable of making nutritional diagnosis. | | | | | |
| 4. Proficiency in food services management. | | | | | |
| 5. Providing nutritional counseling/education both to in-patients/families and out-patients in nutrition clinics. | | | | | |
| 6. Perform evaluation of special diets and diet order according to nutritional diagnosis. | | | | | |
| 7. Participate with medical team in patient's treatment from a nutritional point of view. | | | | | |
| 8. Dietitians only use acceptable and approved abbreviations, acronyms | | | | | |
| 9. Capable of preparing nutritional interventional plan | | | | | |
| 10. Comply with quality control measures. | | | | | |
| Total percentage (%) = Sum of all %/15 | | | | | |
| Final grade | | | | | |

Evaluator's Name: _____

Signature: _____ **Date:** _____



UMM AL QURA UNIVERSITY
Faculty of Applied Medical Sciences
Department of Clinical Nutrition
Clinical Nutrition Internship

Form#4

INTERN FEEDBACK OF INTERNSHIP
(Intern form)

Year: _____ **Hospital:** _____

1. Intern Name: _____
2. Hospital Name: _____
3. Rotation Period: Dates: From: _____ to _____ (No of weeks) _____

1. Name(s) of the supervisor under whom you were trained:

I. Overview: Check (✓) explanation that most closely represents your evaluation of this section.

1. Were intern responsibilities and privileges discussed with you?

- .. Clearly discussed
- .. Clear to some extent
- .. Not clear

2. What is your opinion about training for interns in this section?

- .. Excellent training
- .. Good training
- .. Adequately planned training
- .. Poorly planned training

3. Do you feel that the responsibilities given to you in this section were according to your abilities to handle them?

- .. The responsibilities given to me were suited to my ability to handle them.
- .. Some of the responsibilities were above my ability to handle them.
- .. The responsibilities given to me were too limited and too narrow.

4. Do you feel that you gained maximum benefits of the training in this section?

- .. Yes
- .. To some extent
- .. No benefit

II. Supervision and Instruction: Please rate the section on each item below by **circling** the appropriate number on the rating scale. The rating scale is:

0=Not applicable 1=Poor 2=Adequate 3=Above average 4=Excellent

| | | Rating Scale | | | | |
|----------|--|--------------|---|---|---|---|
| A | Committed to the training program | 0 | 1 | 2 | 3 | 4 |
| B | Supervision of intern | 0 | 1 | 2 | 3 | 4 |
| C | Encouraging intern learning | 0 | 1 | 2 | 3 | 4 |
| D | Amount of feedback given to intern | 0 | 1 | 2 | 3 | 4 |
| E | Friendliness toward intern's questions | 0 | 1 | 2 | 3 | 4 |

III. Clinical Emergency Experience:

1. List below the instruments/equipments/devices you operated.

- 1. _____ 2. _____
- 3. _____ 4. _____
- 5. _____ 6. _____
- 7. _____ 8. _____
- 9. _____ 10. _____

2. List the types of skills you observed but did not perform.

- 1. _____ 2. _____
- 3. _____ 4. _____
- 5. _____ 6. _____
- 7. _____ 8. _____
- 9. _____ 10. _____

3. What additions/deletions or suggestions would you like to make for the training in this section? Please explain.

Additions: _____

- 1. _____
- 2. _____
- 3. _____



Deletions: _____

- 1. _____
- 2. _____
- 3. _____

Suggestions: _____

- 1. _____
- 2. _____
- 3. _____

IV. Academic/Clinical Correlation:

1. Did you find correlation between previously learned theories/concepts (at university) and their practical application during training in this section? If your answer is "no", please explain.

“ yes “ no

2. What recommendations would you like to make to correlate your learning theories/concepts (at university) with the practical experience during training in this section?

V. Intern Signature: _____

Date of rotation: From: _____ **To** _____

Date of Evaluation: _____



FORMS





UMM AL QURA UNIVERSITY
 Faculty of Applied Medical Sciences
 Department of Clinical Nutrition
 Clinical Nutrition Internship

Form #1

Evaluation of Intern by Clinical Nutritionist

Instructions to Evaluator: The columns indicate numerical grades (<60 to 100). Please indicate, by assigning a **numerical grade within one column**, the level of competence at which the intern performed in each category while on rotation in your hospital. If you feel a category is not applicable to your clinical situation, please mark "N/A".

| Evaluation Parameters | Excellent | Very Good | Good | Average | Below average |
|--|-----------|-----------|-------|---------|---------------|
| | 90-100 | 81-90 | 71-80 | 60-70 | <60 |
| General Competences | | | | | |
| 1. Follow hospital regulations and codes. | | | | | |
| 2. Punctuality and initiative for work. | | | | | |
| 3. Adhere to safety rules. | | | | | |
| 4. Exhibit verbal communication skills. | | | | | |
| 5. Work as a team member. | | | | | |
| Clinical Nutrition Competencies | | | | | |
| 1. Assessment of patient nutritional needs (review of medical and diet history, physical measurements, laboratory tests, etc.) | | | | | |
| 2. Ability to prepare a diet plan according to patient health conditions. | | | | | |
| 3. Capable of making nutritional diagnosis. | | | | | |
| 4. Proficiency in food services management. | | | | | |
| 5. Providing nutritional counseling/ education both to in-patients/families and out-patients in nutrition clinics. | | | | | |
| 6. Perform evaluation of special diets and diet order according to nutritional diagnosis. | | | | | |
| 7. Participate with medical team in patient's treatment from a nutritional point of view. | | | | | |
| 8. Dietitians only use acceptable and approved abbreviations, acronyms | | | | | |
| 9. Capable of preparing nutritional interventional plan | | | | | |
| 10. Comply with quality control measures. | | | | | |
| Total percentage (%)= Sum of all %/15 | | | | | |
| Final grade | | | | | |

Evaluator's Name: _____

Signature: _____ **Date:** _____



UMM AL QURA UNIVERSITY
 Faculty of Applied Medical Sciences
 Department of Clinical Nutrition
 Clinical Nutrition Internship

Form #2

SUMMARY OF INTERNSHIP EVALUATION

(Confidential)

| S. No. | Hospital ward | Final Assessment | |
|--|--|------------------|-------|
| | | Percentage (%) | Grade |
| 1 | Food services area | | |
| 2 | Surgery | | |
| 3 | Medical ward | | |
| 4 | Dialysis | | |
| 5 | Pediatrics | | |
| 6 | Obstetrics and gynecology | | |
| 7 | Intensive care unit | | |
| 8 | Orthopedics | | |
| 9 | Cardiology | | |
| 10 | Clinic, diabetic or weight management center | | |
| 11 | Oncology | | |
| 12 | Neurology | | |
| 13 | Optional (Specify: _____) | | |
| Total percentage (%)= sum of all %/13 | | | |
| Final grade | | | |

Remarks (if any):

Name of Clinical Nutrition Training Coordinator: _____

Signature of Clinical Nutrition Training Coordinator: _____

Date: _____





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Form #3

**EVALUATION OF INTERN BY FACULTY
 INTERNSHIP COMMITTEE
 (Confidential)**

Each intern is also evaluated by the program internship committee for the professional development and continued medical education on the basis of participation or attendance in faculty/university scientific conferences, seminars and workshops.

This section represents 20% of the total internship evaluation. Each intern **MUST** fill this form and submit to **program internship coordinator** along with certificates of attendance and participation at the end of internship period for the review of internship committee.

| NO | TITLE OF EVENT | VENUE | DATE | Marks Obtained |
|-------------------------|--|-------|------|-------------------|
| I | ATTENDANCE/PRESENTATION IN FACULTY/UNIVERSITY CONFERENCE: | | | (10 MARKS) |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| II | PARTICIPATION IN COMMUNITY SERVICES | | | (5 MARKS) |
| | | | | |
| | | | | |
| III | COMMITMENT TO FILL INTERN FEEDBACK FORM (FORM #4) | | | (5 MARKS) |
| | | | | |
| | | | | |
| TOTAL MARKS (20) | | | | |

Members of Faculty Internship Committee:

- 1. Name:** _____ **Signature:** _____ **Date:** _____
- 2. Name:** _____ **Signature:** _____ **Date:** _____
- 3. Name:** _____ **Signature:** _____ **Date:** _____
- 4. Name:** _____ **Signature:** _____ **Date:** _____



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Form#4

**INTERN FEEDBACK OF INTERNSHIP
(Intern form)**

Year: _____

Hospital: _____

1. Intern Name: _____

2. Hospital Name: _____

3. Rotation Period: Dates: From: _____ to _____ (No of weeks) _____

3. Name(s) of the supervisor under whom you were trained:

I. Overview: Check (✓) explanation that most closely represents your evaluation of this section.

1. Were intern’s responsibilities and privileges discussed with you?

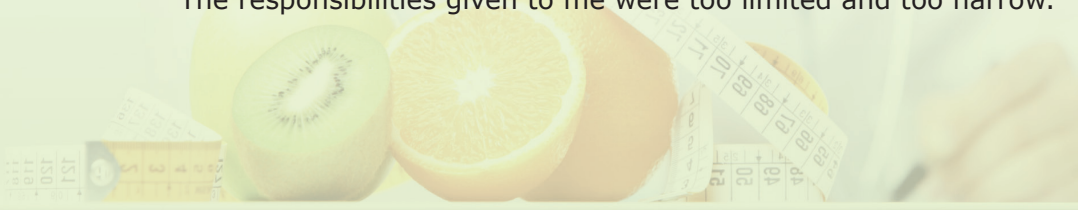
- .. Clearly discussed
- .. Clear to some extent
- .. Not clear

2. What is your opinion about training for interns in this section?

- .. Excellent training
- .. Good training
- .. Adequately planned training
- .. Poorly planned training

3. Do you feel that the responsibilities given to you in this section were according to your abilities to handle them?

- .. The responsibilities given to me were suited to my ability to handle them.
- .. Some of the responsibilities were above my ability to handle them.
- .. The responsibilities given to me were too limited and too narrow.



4. Do you feel that you gained maximum benefits of the training in this section?

- .. Yes
- .. To some extent
- .. No benefit

II. Supervision and Instruction: Please rate the section on each item below by **circling** the appropriate number on the rating scale. The rating scale is:

0=Not applicable **1**=Poor **2**=Adequate **3**=Above average **4**=Excellent

| | | Rating Scale | | | | |
|----------|--|--------------|---|---|---|---|
| A | Committed to the training program | 0 | 1 | 2 | 3 | 4 |
| B | Supervision of intern | 0 | 1 | 2 | 3 | 4 |
| C | Encouraging intern learning | 0 | 1 | 2 | 3 | 4 |
| D | Amount of feedback given to intern | 0 | 1 | 2 | 3 | 4 |
| E | Friendliness toward interns' questions | 0 | 1 | 2 | 3 | 4 |

III. Clinical Laboratory Experience:

1. List below the instruments/equipments you operated.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____
7. _____ 8. _____
9. _____ 10. _____

2. List the types of tests you observed but did not perform.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____
7. _____ 8. _____
9. _____ 10. _____

3. What additions/deletions or suggestions would you like to make for the training in this section? Please explain.

Additions: _____

1. _____
2. _____
3. _____



Deletions: _____

- 1. _____
- 2. _____
- 3. _____

Suggestions: _____

- 1. _____
- 2. _____
- 3. _____ _____ _____

IV. Academic/Clinical Correlation:

1. Did you find correlation between previously learned theories/concepts (at university) and their practical application during training in this section? If your answer is "no", please explain.

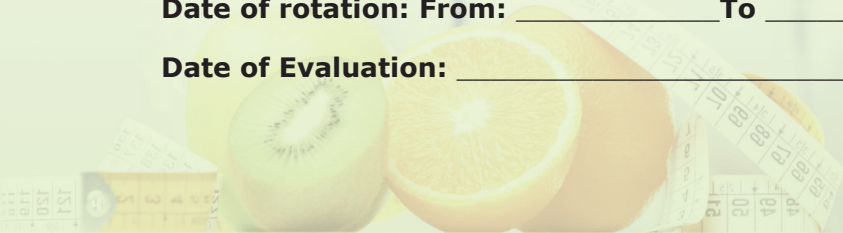
.. yes .. no

2. What recommendations would you like to make to correlate your learning theories/concepts (at university) with the practical experience during training in this section?

V. Intern Signature: _____

Date of rotation: From: _____ **To** _____

Date of Evaluation: _____





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Form #5

Internship Monitoring Report

Year: _____

1st Visit 2nd Visit 3rd Visit

Name of the Hospital: _____

A: FEEDBACK FROM HOSPITAL TRAINING COORDINATOR:

Name of the Hospital Training Coordinator: _____

| Intern Performance: | Excellent | Very Good | Good | Average | Below average |
|---|-----------|-----------|-------|---------|---------------|
| | 90-100 | 81-90 | 71-80 | 60-70 | <60 |
| 1. Follow hospital rules and regulations. | | | | | |
| 2. Punctuality and initiative for work. | | | | | |
| 3. Adhere to safety codes. | | | | | |
| 4. Exhibit verbal communication skills. | | | | | |
| 5. Work as a team member. | | | | | |
| Problems with Interns, if any. | | | | | |
| | | | | | |

B: FEEDBACK FROM INTERSHIP INTERNS:

| Intern Experience: | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|--|----------------|-------|---------|-----------|-------------------|
| | 5 | 4 | 3 | 2 | 1 |
| 1. The internship is giving me a better understanding of concepts and skills. | | | | | |
| 2. I am given level of responsibilities which is consistent with my abilities. | | | | | |
| 3. My supervisor is available and accessible when I have questions. | | | | | |
| 4. I have regular meeting with my supervisor and receive constructive feedback. | | | | | |
| 5. Are you all using UQU internship booklet. | Yes | | | No | |
| 6. If yes , does this booklet provide you useful guidance for internship? | | | | | |
| 7. If not , please state the difficulties. | | | | | |
| | | | | | |
| 8. Any Suggestions: | | | | | |
| | | | | | |

HOSPITAL COORDINATOR’S FEEDBACK ON UQU INTERNSHIP BOOKLET:

| Name of the Hospital | | | | | |
|--|----------------|-------|-----------|----------|-------------------|
| Hospital Coordinator’s impression on UQU internship booklet | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
| | 5 | 4 | 3 | 2 | 1 |
| 1. Is this hospital using UQU internship booklet for UQU interns? | Yes | | No | | |
| If yes, 1.1. This booklet provides useful guidance to interns. | | | | | |
| 1.2. It is helping hospital supervisors to be aware of the tasks to be meet by the interns in each discipline. | | | | | |
| 1.3. Intern are using UQU internship booklet. | | | | | |
| 1.4. Interns experience any difficulty in following internship booklet. | | | | | |
| 2. If hospital is not using UQU internship booklet, please state the difficulties. | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |

Name of the Hospital Training Coordinator: _____

Signature: _____

Date: _____

Members Name: _____

Members Signatures: _____





تصميم واخراج

