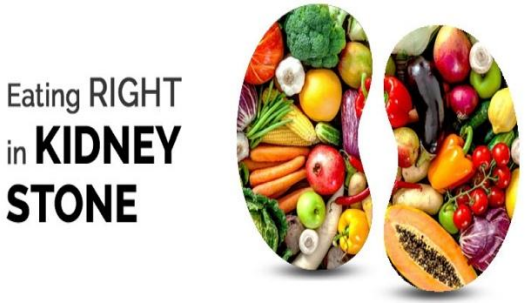
VALUE ADDED COURSE:
UROLITHIASIS AND DIET



KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH

JAWAHARLAL NEHRU MEDICAL COLLEGE, BELAGAVI

DEPARTMENT OF UROLOGY

VENUE:
TIMINGS:-
REGISTRATION FEE:- AS PER KAHER UNIVERSITY

Co-ordinaters:-
DRS.I.NEELI
DR VIKRAM PRABHA
DR VISHAL KADELI

KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH

JAWAHARLAL NEHRU MEDICAL COLLEGE, BELAGAVI

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VALUE ADDED COURSE

As per

Competency Based Medical Education Curriculum

Name: _____ Roll No: _____

University Registration No. _____

VALUE ADDED COURSE:

Value Added Course: A Value Added Course is a learning experience created in the curriculum to provide an opportunity for the learner to explore, discover and experience areas or streams of interest.

Log Book: Is a verified record of the progression of the learner documenting the acquisition of the requisite knowledge, skills, attitude and/or competencies.

Portfolio: is a collection of the learner's progression in tasks and competencies. A portfolio is an evidence of events documented in the log book. It includes selected assignments, self-assessment, feedback, work-based and in-training formative assessments, reflections and learnings from planned activity in the curriculum.

Log books are thus linked to portfolios and may be included in the portfolio.

Objectives:

To provide the learner with opportunities:

(a) For diverse learning experiences,

(b) To do research/community projects that will stimulate enquiry, self-directed, experiential learning and lateral thinking.

It is mandatory for learners to do a value added course. The course time should not be used to make up for missed clinical postings, shortage of attendance or other purposes.

Structure:

(a) The learner shall rotate 16 lectures in total

(b) These lectures will cover the basics and provide insights into the field which will help the students gain interest in that particular science

During the course, regular clinical postings shall continue.

A Grade during elective postings is required for eligibility to appear in the final MBBS examination.

Grading: Percentage above 70 % = A+

Percentage above 50 to 70 % = A

Percentage less than 50 % = B

	VALUE ADDED COURSE
WHEN AND WHOIM	AFTER TEACHING HOURS, ANY HEALTH CARE PROFESSIONAL STUDENT
FOCUS OF ELECTIVES	CLINICAL SPECIALITIES
NATURE OF LEARNING	SUPERVISED, SELF DIRECTED
REGULAR CLINICAL POSTINGS	WILL NOT BE OFFERED
ATTENDANCE	MANDATORY 75%
ASSESSMENT	LOG BOOK & REFLECTION
OUT OF INSTITUTION EXPERIENCE	NOT ALLOWED
OUT OF CITY OR STATE EXPERIENCE	NOT ALLOWED

INTRODUCTION TO THE COURSE

UROLITHIASIS & DIET

Urolithiasis is a global problem spanning all geographic regions with an estimated annual incidence of 1%, prevalence of 3–5% and a lifetime risk of 15–25%. Once afflicted, urolithiasis tends to be recurrent in the majority of cases. The 50% of kidney patients have reappearance within 10 years. In a recent study the recurrence rates are estimated at about 10% per year, totaling 50% over a 5–10 years period and 75% over 20 years. In India, 12% of the people is estimated to have urinary stones, out of which 50% may end up with loss of kidneys or renal damage.

Because of the high diagnostic and treatment costs of kidney stones and their association with serious complications it is important to target modifiable risk factors for the prevention of developing urinary tract stone formation. Accumulating evidence has shown that higher urinary excretion of calcium, oxalate, uric acid, and creatinine as well as lower excretion of urinary citrate are potential urinary metabolic risk factors for kidney stone formation. About 80% of kidney stones are made up calcium salts, of which calcium oxalate stones are the main calcium-containing stones. The tendency to calcium oxalate crystal formation is directly associated with urinary concentrations of uric acid, oxalate and calcium, and inversely related to citrate and magnesium exertion.

Many urinary etiologic factors in the development of kidney stones could be sufficiently modified by diet, as the urine ionic composition and supersaturation are straightly associated with diet. Certain dietary factors, especially low intake of fiber, potassium, calcium, and fluids well as high intake of sodium, animal protein and fat, have been identified to be main dietary contributors to the risk of kidney stones. The dietary guidelines for prevention of kidney stones focus on the nutrients and foods having effects on the urinary saturation. A diet which is high in vegetables and fruits, legumes and nuts, low-fat dairy products, whole grains, and low in animal protein, sweetened beverages, and sodium has a potential for kidney stone prevention.

Course Content:

1. Introduction to Urolithiasis
2. Prevalence of urolithiasis
3. Risk factors for Urolithiasis
4. Saturation, Nucleation and Crystal growth
5. Inhibitors and Promotors of Crystal formation
6. Anatomic pre-disposition to stones
7. Classification of Urolithiasis
8. Symptoms and signs of Urolithiasis
9. Dietary assessment in stone formers
10. Nutrition therapy for low volume urine
11. Nutrition therapy for High Urine Calcium
12. Nutrition therapy for High Urine Oxalate
13. Nutrition therapy for Low Urine Citrate/ Magnesium/ Potassium
14. Nutrition therapy for High Urine Uric acid
15. Therapeutic Nutritional Strategies when no risk factors are apparent
16. Strategies for providing nutritional therapy and education to patients

ASSESSMENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 1 (INTRODUCTION TO UROLITHIASIS)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 2 (PREVALENCE OF UROLITHIASIS)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 3 (RISK FACTOR FOR UROLITHIASIS)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 4 (SATURATION, NUCLEATION AND CRYSTAL GROWTH)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 5 (ANATOMIC PREDISPOSITION OF STONES)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 6 (INHIBITORS AND PROMOTERS OF CRYSTAL FORMATION)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 7 (CLASSIFICATION OF UROLITHIASIS)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 8 (SYMPTOMS AND SIGNS)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 9 (DIETARY ASSESSMENT IN STONE FORMERS)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 10 (NUTRITION THERAPY FOR LOW VOLUME URINE)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 11 (NUTRITION THERAPY FOR SPECIFIC LITHOGENIC RISK HIGH URINE CALCIUM)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 12 (NUTRITION THERAPY FOR SPECIFIC LITHOGENIC RISK HIGH URINE OXALATE)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 13 (NUTRITION THERAPY FOR SPECIFIC LITHOGENIC RISK LOW URINE CITRATE, MAGNESIUM AND POTTASIUM)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT
INTERACTIVE LECTURE 14 (NUTRITION THERAPY FOR SPECIFIC LITHOGENIC RISK HIGH URINE URIC ACID)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

ACTIVITY	FACULTY COMMENTS & SIGNATURE	GRADING
INTERACTIVE LECTURE 15 (THERAPEUTIC NUTRITIONAL STRATEGIES WHEN NO RISK FACTORS ARE APPARENT)	INTERACTIVE IN SESSION YES/NO	FAIR/ SATISFACTORY/ EXCELLENT

INTERACTIVE LECTURE 16 (STRATEGIES FOR PROVIDING NUTRITIONAL THERAPIES AND EDUCATION TO PATIENTS)	INTERACTIVE IN SESSION YES/NO	PRESENT/ ABSENT

STUDENT INTERPRETATION

INTRODUCTION TO UROLITHIASIS

WHAT DID YOU LEARN?

PREVALENCE OF UROLITHIASIS

WHAT DID YOU LEARN?

RISK FACTORS OF UROLITHIASIS

WHAT DID YOU LEARN?

SATURATION, NUCLEATION AND CRYSTAL GROWTH

WHAT DID YOU LEARN?

INHIBITORS AND PROMOTERS OF CRYSTAL FORMATION

WHAT DID YOU LEARN?

ANATOMIC PREDISPOSITION OF STONES

WHAT DID YOU LEARN?

CLASSIFICATION OF UROLITHIASIS

WHAT DID YOU LEARN?

SYMPTOMS AND SIGNS OF UROLITHIASIS

WHAT DID YOU LEARN?

DIETARY ASSESSMENT IN STONE FORMERS

WHAT DID YOU LEARN?

NUTRITION THERAPY FOR LOW VOLUME URINE

WHAT DID YOU LEARN?

NUTRITION THERAPY FOR HIGH URINE CALCIUM

WHAT DID YOU LEARN?

NUTRITION THERAPY FOR HIGH URINE OXALATE

WHAT DID YOU LEARN?

NUTRITION THERAPY FOR LOW URINE CITRATE/MAGNESIUM/POTASSIUM

WHAT DID YOU LEARN?

NUTRITION THERAPY FOR HIGH URINE URIC ACID

WHAT DID YOU LEARN?

THERAPEUTIC NUTRITIONAL STRATEGIES WHEN NO RISK FACTOR IS APPARENT

WHAT DID YOU LEARN?

STRATEGIES OF PROVIDING NUTRITIONAL THERAPIES AND EDUCATION TO PATIENTS

WHAT DID YOU LEARN?