





Three Months Certification Course in

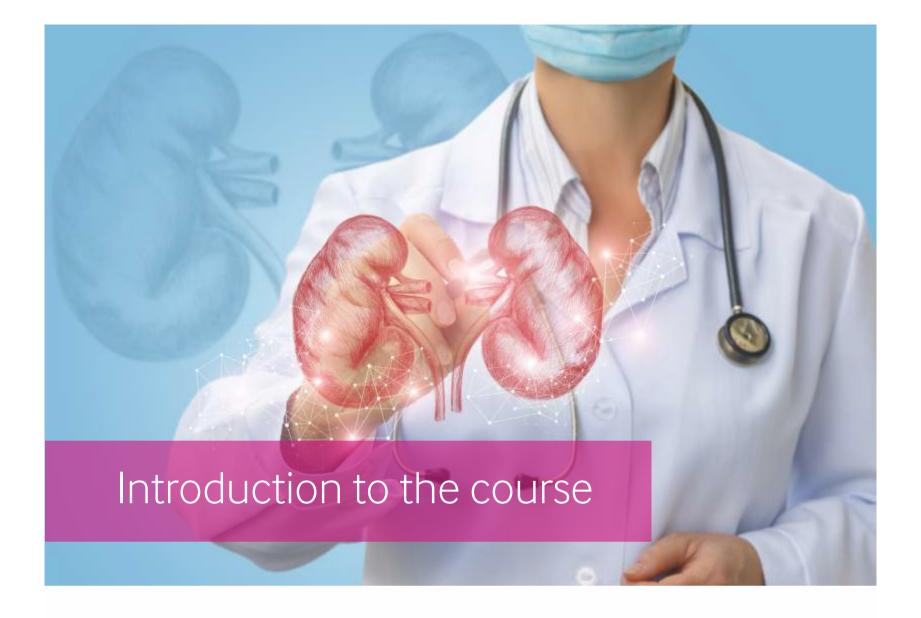
# Chronic Kidney Disease (CKD)

For General Practitioners & Physicians



"Very good information on CKD statistics. Covers a wide range of renal disease very well. The emphasis here was very much on diagnosis of the cause of the CKD which I was so pleased with as most of my reading on CKD has been on detection and monitoring. This module focussed on reaching a diagnosis. It also made the point on the difference in investigation/testing in 'diabetes and CKD' as opposed to 'hypertension and CKD' and flagged up the difference here. At last a full explanation of renal sediments / the various casts seen on urine microscopy in msu's (something I have struggled with for years)!"

User Feedback



Chronic kidney disease (CKD) is a common condition that is often unrecognised until the most advanced stages. It is estimated that 9% to 13% of the adult population worldwide has CKD.[1][2][3] In 2017, the estimated worldwide prevalence of CKD stages 1 to 2 accounted for 5%, stage 3 for 3.9%, stage 4 for 0.16%, stage 5 for 0.07%, dialysis for 0.041%, and kidney transplantation for 0.011%.[3]

The prevalence of CKD in different regions in India ranges from <1% to 13%. Data from the International Society of Nephrology's Kidney Disease Data Center Study reported a prevalence of 17%. [4]

Identification of CKD in early stages helps to delay the progression of the disease which in turn decreases the economic burden on individual, family and community. In this context, we have worked to meet the need of medical professionals to have access to CKD management resources and announce the launch of the Three Months Certification Course in Chronic Kidney Disease (CKD).

The course aims to cover the pathophysiology, presentation, diagnosis of CKD and its complications and treatment of CKD. We hope this course will help clinicians to provide better kidney care to their patients.

We hope that doctors in India avail this opportunity to educate themselves about their key role in detecting and reducing the risk of CKD and in controlling the CKD epidemic.

Webster AC, Nagler EV, Morton RL, et al. Chronic kidney disease. Lancet. 2017 Mar 25;389(10075):1238-52.
Hill NR, Fatoba ST, Oke JL, et al. Global prevalence of chronic kidney disease - a systematic review and meta-analysis. PLoS One. 2016 Jul 6;11(7):e0158765.

GBD Chronic Kidney Disease Collaboration. Global, regional, and national burden of chronic kidney disease, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2020 Feb 29:395(10225):709-33.

Varughese, Abraham. Clin J Am Soc Nephrol. 2018 May 7; 13(5): 802–804.



# **ABOUT**

#### About BMJ

BMJ started out over 180 years ago as a medical journal, publishing our first research paper. Now, as a global brand with worldwide audience, we help medical organizations and clinicians tackle today's most critical healthcare challenges. Today, our expertise extends to medical education, clinical decision support and quality improvement to enhance day to day decision- making and healthcare delivery. However, our core objective remains unchanged. We continue to support medical professionals and organizations in improving the delivery of healthcare. We do this by publishing new academic research, providing professional development solutions and creating clinical decision support tools.

#### About The Royal College of Physicians

The Royal College of Physicians is a world leader in postgraduate medical education. We deliver a wide range of projects aimed at strengthening health systems and improving medical standards across the globe. Our work spans high-, middle- and low-income countries, ranging from clinical skills workshops in rural Nigeria to accreditation work and guideline development in the middle east. We also develop and coordinate the globally-recognised MRCP (UK) exams as part of the Federation of the Royal College of Physicians.

#### About MAHE

Manipal Academy of Higher Education (MAHE) is one of India's leading academic and research institutions. It has been granted Institution of Eminence status by the Ministry of Education, Government of India. Manipal Institutions have long been distinguished for excellence in professional education. The University is home to some of the top ranking institutions across diverse disciplines.





Dr. Saurabh Pokhariyal

Head of department Nephrology and Renal Transplantation. Manipal Hospital, Dwarka, New Delhi

I would like to welcome you to this course on Chronic Kidney Disease (CKD). As a major non-communicable disease CKD is assuming epic proportions across the world. Treatment of advanced renal disease by dialysis or renal transplantation is prohibitively expensive and in low income countries very few patients can afford such care. The focus should therefore be on preventing kidney disease or slowing the progression of CKD so that dialysis or transplantation can be avoided. We have put together a comprehensive module on diagnosing, classifying and managing all aspects of CKD and it should go a long way in helping our primary care physicians in caring for such patients.



Dr. Kieran Walsh

Clinical Director BMJ Learning & BMJ Best Practice, London

BMJ is one of the world's leading providers of medical knowledge and education. The BMJ brand stands for medical credibility - we are known around the world for the quality of our content. Our portfolio of learning products provides doctors and other healthcare professionals with the opportunity to engage with the most current and relevant content for their continuing professional development. BMJ is proud to offer the new Chronic Kidney Disease certificate course. The modules in the course have been created and reviewed by eminent subject experts across India. We are sure that this course will help you improve the quality of care that you provide to patients.

### **Contact Program Faculty from MAHE**



Dr. Dharshan Rangaswamy

Professor & Head, Department of Nephrology, In-charge Division of Pediatric Nephrology, Kasturba Medical College & Hospital, Manipal, Karnataka

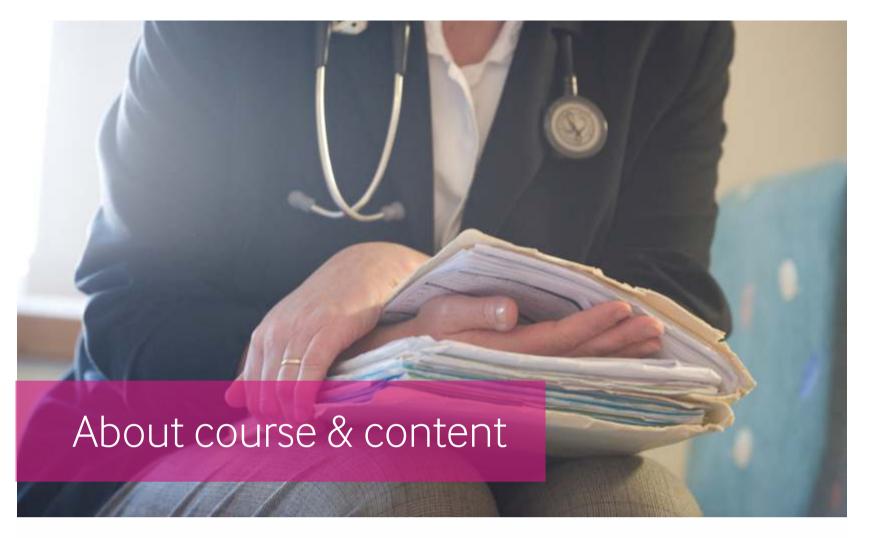


Dr Shankar Prasad

Professor

Department of Nephrology

KMC Manipal



#### About course

Certification course in CKD from BMJ & Manipal Academy of Higher Education (MAHE) aims to cover the pathophysiology, presentation, diagnosis of CKD and its complications and treatment of CKD. We believe this course will help clinicians to provide better kidney care to their patients. Post completion of 3 months e-learning, the course offers 3 days contact program at KMC Manipal under the supervision of subject matter expert.

### Course Objectives

- Understand the pathophysiology, presentation, diagnosis of CKD and its complications.
- Complete management of CKD and indications for referral to a nephrologist and follow-up and monitoring required.
- To understand the treatment of reversible causes of renal failure in a patient with chronic kidney disease (CKD) and measures to slow progression of kidney disease.
- Understanding and evaluating chronic kidney disease in pregnancy, elderly and children
- The various types of vascular access in dialysis.
   When to create the access and their relative merits and drawbacks.
- Basic Principles of Clinical Assessment and Management of CKD due to Diabetic and other Non-Diabetic Kidney Diseases, Glomerular diseases, Urinary Tract infections, Renal Calcular disease etc.

- Diabetes and Hypertension management in CKD
- Basic assessment & management of Hemodialysis ,Peritoneal dialysis patients and Kidney transplant recipients
- Management of Children with CKD :How it differs from Adults
- Nutrition in CKD: How to prescribe?
- Fluid & Electrolytes what we should know a practical approach

#### Course USPs

- Course developed by expert panel of nephrologists
- Evidence based and peer reviewed content
- E-learning and blended learning course designed to fit in the workflow of busy clinicians with practical insights and networking opportunities during the contact program at KMC Manipal for physicians

# Curriculum

### Module 1 Introduction to chronic kidney disease

- Definition of Chronic Kidney Disease (CKD)
- Epidemiology (EPI) of CKD
- Common causes of CKD
- Different stages of CKD
- Indications for referral to a nephrologist
- Follow-up and monitoring required

# Module 2 Screening and diagnostic approach to chronic kidney disease

- To know if screening is helpful in early diagnosis of CKD and its management
- To know who is at high risk of developing CKD
- To choose investigations to screen for CKD
- To diagnose CKD

# Module 3 Clinical assessment in chronic kidney disease

- To help in early diagnosis and optimal management
- Focus on good clinical history and physical examination along with a simple biochemical test help in making a diagnosis
- Identification of people at risk and their screening

# Module 4 Management approach to a patient with chronic kidney disease

- Treatment of reversible causes of renal failure in a patient with chronic kidney disease (CKD)
- Measures to slow the progression of kidney disease
- Treatment and prevention of complications of CKD, e.g. hyperkalemia, volume overload, metabolic acidosis, and malnutrition
- Management of cardiovascular disease in a patient with CKD
- Indications and preparation for renal replacement therapy in a patient with advanced kidney disease

## Curriculum

### Module 5 Diabetic and hypertensive nephropathy

- Know how to monitor and manage the various complications of diabetes with particular emphasis on diabetic nephropathy
- Know when to refer a patient with diabetes and hypertension to a nephrologist
- Know the indications of renal biopsy in a patient with diabetes.
- Know how to manage a patient with diabetes and end stage renal disease

# Module 6 Dealing with progression of chronic kidney disease

- To learn about the importance of early detection of chronic kidney disease.
- To learn about the factors influencing the progression of chronic kidney disease
- To learn about the risk factors for how to retard the progression of renal disease

# Module 7 Part A: Managing Chronic Kidney Disease in elderly people

- How to diagnose chronic kidney disease in elderly people
- How to manage chronic kidney disease in elderly people

### Part B: Chronic Kidney Disease in Pregnancy

- The physiological changes in the kidneys that happen during pregnancy
- How to assess kidney function in pregnancy
- How to diagnose chronic kidney disease in pregnancy
- How to manage chronic kidney disease in pregnancy

### Module 8 Chronic kidney disease in children

- How to diagnose and classify chronic kidney disease (CKD) in children
- Epidemiology and etiologies of paediatric CKD
- How to manage patients with pediatric CKD
- Follow up and monitoring required for paediatric CKD patients

### Curriculum

### Module 9 Vaccinations in chronic kidney disease

- Why timely vaccination of patients with CKD is necessary
- What are the mandatory vaccinations that every patient with CKD should receive
- What is the universal vaccination schedule recommended by international bodies

# Module 10 Creating vascular access in patients with chronic kidney disease

- Why creation of an optimal access is necessary
- When an early access should be planned
- What are the different vascular access that can be created
- What are the features of a well-functioning vascular access
- How to evaluate a patient with CKD towards vascular access creation
- The different choices of vascular access available
- How to choose the optimum access in a given clinical situation

### Module 11 Nutrition in adults with chronic kidney disease

- To know about protein-energy wasting (PEW) and the factors associated with it
- To know the parameters used in assessing protein-energy wasting in adults with chronic kidney disease.
- To know about the evidence-based requirements of key nutrients for adults with chronic kidney disease with/without dialysis

# Module 12 Nutrition in children with chronic kidney disease

- To know about protein-energy wasting (PEW) and the factors associated with it
- To know the parameters used in assessing protein-energy wasting in children with chronic kidney disease.
- To know about the evidence-based requirements of key nutrients for children with chronic kidney disease with/without dialysis



### Eligibility

- Minimum requirement for course intake is MBBS
- Candidate has to be a Registered Medical Practitioner with NMC or any of the state medical councils

### **Course Option**

- Three months certification course in Chronic Kidney Disease (with contact program at KMC Manipal)
   Course Fees: INR 37,760 inclusive of all taxes
- Three months certificate course in chronic kidney disease only online
   Course Fees: INR 25,000 inclusive of all taxes

#### **Examination Pattern**

- E-learning MCQ online
- Blended learning MCQ, VIVA

# Authors



**Dr. Lloyd Vincent** Senior Consultant Nephrologist Narayana Health, Bangalore



**Dr. Manish Rathi**Additional Professor
Department of Nephrology
Post Graduate Institute
of Medical Education and Research,
Chandigarh



Ms. Mitravinda Aneesh
Consultant Nutritionist and Guest Faculty
Department of Food and Nutrition
Smt. V.H.D Central Institute of
Home Science, Bangalore



**Dr. Mohit Madken**Associate Consultant
Kidney and Urology Institute
Fortis Escorts, New Delhi



**Dr. Narayan Prasad**Professor of Nephrology
Sanjay Gandhi Postgraduate
institute of Medical Sciences, Lucknow



**Dr. Rupesh Raina** Consultant Nephrologist Cleveland Clinic, Ohio



**Dr. Salil Jain**Additional Director
Fortis Memorial Research Institute,
Gurgaon



Dr. Santosh Varughese
Professor and
Head Department of Nephrology
Christian Medical College, Vellore



**Dr. Saurabh Nayak**Senior Resident in Nephrology
Post Graduate Institute of Medical
Education and Research, Chandigarh, India



**Dr. Shilpi Shah, MD** Internal Medicine Resident University of Texas, Houston



**Dr. Sidharth Sethi** Cosultant Nephrology Kidney and Urology Institute Medanta, Gurgaon



**Dr. Tarun Jeloka**Senior Consultant
Nephrology and Renal Transplant
Aditya Birla Memorial Hospital, Pune



**Dr. Vijay Kher**Chairman
Division of Nephrology
& Renal Transplant Medicine
Fortis Escorts, New Delhi



**Dr. Vishal Saxena** Additional Director FMRI, Gurgaon







CKD/21-22/08/73

This is to certify that

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has successfully completed the Three Months Certificate Course in Chronic Kidney Disease by BMJ,

Accredited by Manipal Academy of Higher Education and awarded

the Certificate on 29th October 2023

reven with

Dr. Kieran Walsh Course Director

London

Dr. Saurabh Pokhariyal

Course Director India

**Dr Mumtaz Patel** Meaber

Education and Training Royal College of Physicians Vice President

KMC, ManipalIndia

Dr. Padmaraj Hegde

# BMJ

IT Tower 3rd Floor FC -24, Film City Sector 16 A, Noida, UP Pin code - 201301

102, Navkar Chamber, A Wing, Marol, Andheri - Kurla Road, Andheri (East) Mumbai- 400059

For any further information or queries, please write to us at **education.india@bmj.com** or call us at 0120 - 4345733, +91-9650052070 (09:00 AM – 05:30 PM, Monday to Friday)

### **Head office**

BMJ
BMA House
Tavistock Square
London
WC1H 9JR