



MALABAR CANCER CENTRE

THALASSERY

KANNUR DISTRICT, KERALA

(An autonomous centre under
Government of Kerala)

Annual Report

2016-17



MALABAR CANCER CENTRE
THALASSERY

ANNUAL REPORT
2016-2017

MISSION & VISION

Mission

Non-compromising Professionalism in Quality of Treatment, Research and Education.

Vision

The development of an exponentially progressing high quality institution with equal trust on clinical care, oncology related education and multifaceted research.

Emblem



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Governing Body

Chairman	Shri. Pinarayi Vijayan , Hon'ble Chief Minister of Kerala
Vice-Chairman	Smt. K.K. Shailaja Teacher , Hon'ble Minister for Health & Social Justice
Alternate Vice-Chairman	Shri. Kadakampally Surendran , Minister for Electricity, Kerala
Members	Shri. E.K. Prakash, Special Secretary, Department of Finance, Kerala Secretary, Department of Power, Kerala District Medical Officer, Kannur Shri. Rajeev Sadanandan IAS, Additional Chief Secretary, Department of Health & Family Welfare An eminent Medical Scientist Secretary, Department of Science, Technology & Environment One nominee of the Ministry of Health, Government of India Dr.V.P Sasidharan, Principal, Medical College, Kozhikode Secretary - Planning & Economic Affairs Department, Kerala Director - Rajiv Gandhi Centre for Bio technology, Trivandrum Director of Medical Education, Directorate of Medical Education, Trivandrum A public man from North Malabar region (to be nominated by Government of Kerala) One Head of the department nominated from Malabar Cancer centre, Thalassery by the Government. One nominee of the Charitable Society established for rehabilitation and financial assistance for poor cancer patients Adv.A.N.Shamseer MLA, Thalassery Assembly constituency Shri. K.V.Sumesh President, District Panchayat, Kannur Shri.C.K.Rameshan, Chairman, Thalassery Municipality Dr.Paul Sebastian Director, Regional Cancer Centre, Thiruvananthapuram Dr.Sudhakaran.K, Principal, Medical College, Pariyaram. Dr.Satheesan B, Director Malabar Cancer Centre, Thalassery.

Executive Committee

Chairman	Shri Rajeev Sadandan , IAS Additional Chief Secretary, Health & Family Welfare Department
Members	Secretary, Department of Power, Government of Kerala Shri. Jacob Koshy, Additional Secretary to Government, Finance Shri. C K Rameshan, Chairman, Thalassery, Municipality Shri. M C Pavithran, A public man from North Malabar nominated by Government of Kerala Secretary, Department of Planning & Economic Affairs, Government of Kerala Dr. Paul Sebastian, Director, Regional Cancer Centre, Trivandrum
Member/Convener	Dr. B. Satheesan , Director, Malabar Cancer Centre

FROM DIRECTOR'S DESK



“Strength and growth come only through continuous effort and struggle
Napoleon Hill

We proudly present the annual report of the year 2016-17 which was a year of struggle and progress for Malabar Cancer Centre. The year was a landmark one for MCC as it started a few flagship programs. Rehabilitation after cancer treatment is an area of great interest and challenge. The cure rates of cancer have been on the rise for past 3-4 decades. Though majority of cancers detected in India are in advanced stage, the long term survival rates increase gradually. But the morbidity left after multimodal treatment in view of the advanced nature of the disease is significant. The morbidity becomes a major hurdle for the survivors especially in head and neck cancers. The speech, swallowing and cosmetic problems associated with head and neck

cancers were addressed in a concert-like fashion in MCC during this year. A full time dental outpatient department started functioning with prosthetic rehabilitation routinely done as a part of cancer therapy. In addition, maxillofacial prosthesis service was also started benefitting a good number of patients with oral cavity cancers and maxillary tumors. Dental screening prior to starting radiotherapy for head and neck cancers was made mandatory. The speech and swallowing clinic and dietary advisory clinics too functioned in tandem to facilitate the program. This is fore-runner for a long term project on Rehabilitative oncology which will be a hallmark for MCC.

The department of Oncology Nursing ,a pride of MCC, started its third nurse run clinic-Central Venous Access Device (CVAD) Clinic was started under a nurse trained in the central venous access device placements and care at Tata Memorial Hospital, Mumbai. The department was further decorated with prestigious Florence Nightingale award through Ms.Sindhu.N.R. This has lifted the morale of the department and nurses. The patient care and discipline among the nurses too showed significant positive drift.

The institution could acquire some state of art equipments during the period. The latest high end ultrasound (Toshiba Aplio 500) with ABUZE technology was installed in Imageology department.It has lot of features specifically useful for oncology including automatic screening of breast for lesions. This is an asset for the institution with one radiologist to done the huge load. Five Part Automated Cell Counter LH 750,grossing work station(reduces the exposure of personnel to formaldehyde, semi-automated microtome, high end binocular microscopes, Immuno Assay Access-2 etc are added to the repertoire of laboratory services. MIM soft ware for radiation contouring and planning too expected to improve the quality of care.

The community outreach programs of MCC through department of community oncology took a new dimension. Athijeevanam Project at Neeleswaram Block Panchayath which included capacity building for CHC and local self government bodies in cancer awareness and screening.In addition, development of community cancer registry was also apart of the project. Two early cancer detection centres were set up in Cheruvathur CHC and Trikaripur Taluk Hospital. The whole idea of the project was to make the cancer detection, awareness and assistance to cancer patients a responsibility of the public through structured training and awareness programs implemented through LSG bodies.

Cancer Vimuktha Gramam - A cancer control project by Kannapuram Grama Panchayath. Is another con-

tinuing project. In addition Sansad Adarsh Grama Yojna in Kuttiyattor panchayath entered third year. Its an innovative concept of Health literacy.Health information division in association with National Service Scheme of Kerala and IHRD funded by V-guard group initiated a social media campaign on cancer.It was named as Aware and Awake. This project was aimed at dail positive messages on cancer as posters and videos to various whatsapp groups of NSS volunteers.The department conducted 138 screening camps, 41 awareness programs and 37 cancer awareness exhibitions.

There were 4480 new cancer patients registered among the total registration of 6300. 63657 follow up visits and 4017 in- patients shows the clinical volume.Around 1700 new patients received radiation therapy and over 1200 major surgeries were performed in two operation theatres.60-65 patients undergo day care chemotherapy.

Six hundred and six students including 34 medical doctors 384 Bsc nursing ,15 medical physics interns and trainees etc underwent training at MCC. There were 95 research projects approved by IRB through 16 meetings of IRB. The efforts at establishing Research Advisory committee and Biosafety committee are initiated. These will further augment the research a capability of the institution.

Plan budget fund release, delay in pay parity decisions etc form small dents in a great year of the institution. The proposal to develop the institution as postgraduate institute of oncology sciences and research as per the memorandum of understanding is to be submitted to Government. Hope this report shall provide a birds eye view of the activities of the institution. I thank all the members of Governing body, executive committee and various standing committees and the staff of MCC for their invaluable contribution in the growth and development of the institution.

Dr. Satheesan B.

FROM THE DESK OF ADMINISTRATIVE OFFICER



Malabar Cancer Centre (MCC) is an autonomous Centre, under Department of Health & Family Welfare, Government of Kerala. Quality healthcare services in cancer, under public sector, as it exists today is concentrated mainly with Regional Cancer centre, Trivandrum and Malabar Cancer Centre Thalassery. There is a huge dependency on these Centres and exponential demand in the healthcare space gives us the confidence that we are moving in the right direction with the right strategies and the right talent on board. MCC's strategy is to deliver quality affordable services to every section of society. MCC aims to maintain focus on clinical excellence, affordability, and sequentially also ensure the overall development of the Institute towards a premier cancer care and research centre. We recognize that a patient feels most vulnerable when he/she arrives at a hospital. It has therefore been our constant endeavour to make our patients feel most comfortable and cared for. MCC is promoting effective patient attendant training programme that is meant to cultivate a culture of organized learning; with specific training to ensure seamless service delivery. The past year clearly reflects the growth and development of MCC and also the physical progress achieved by the Centre in hospital services. Even though we are moving in the right direction, we could have still marched ahead in a bigger way, but was restricted due to non-execution of construction of various major projects of MCC by the Agency/ Consultant, to whom entire construction works and consultancy works were entrusted. Now the construction agency have changed and the scenario looks bright ahead.

There has also been noticeable improvement in key areas like clinical excellence, patient care, commu-

nity related programmes etc:- A series of sustainable strategic actions were designed to enhance organizational capabilities and improve patient care. In our journey of continuous improvement our prime task has been to strengthen our clinical framework. This is being carried out by continuous focus on talent, training, processes and following clinical pathways. We are indeed proud to say that today, MCC occupies a preferred place in many of the clinical areas that it has concentrated. We commend the entire medical team for this fantastic effort which is worthy of great praise

A few drawbacks noticed would be reviewed at year-end and addressed appropriately. During the year priority will be given to enhance the Imageology Department by purchasing High End 128 slice CT Scanner and establishing Intervention radiology system- Cath Lab with accessories for oncological interventions. During the period we also propose to up-grade Department of Clinical Laboratory Services and Translational Research and to set up 3rd Operation Theatre. It is also proposed to purchase 1000 KVA LT Diesel Generator and to expand the present Malabar Population Based Cancer Registry to 5 more Districts.

While keeping the highest level of quality and clinical excellence, MCC will continue to pursue initiatives that keep tight control on purchases, driving down capital costs by effective control and to develop new technologies. It should be seen that MCC is in a developing phase and the desired goal can be achieved only with the whole-hearted support of all our dedicated staff members.

A.K. Rajesh

Introduction to Malabar Cancer Centre



Malabar Cancer Centre, Thalassery (MCC) is an autonomous institution under Health and Family Welfare Department, Government of Kerala, started with an aim to establish a comprehensive cancer centre, providing the much-required oncology care to the population of Northern region of Kerala and neighboring parts of Karnataka and Tamilnadu states and Union Territory of Pondicherry(Mahe). The centre, situated in a beautiful hill top in Kodiyeri in Thalassery Municipality 5km away from town established in 2001 .The main objective of the Centre is not only to provide comprehensive cancer care but also to develop as a Research and Training Centre of International standards. At present MCC has in-patient bed strength.

The institution is a tertiary cancer centre which renders its service to society with equal thrust on clinical and translational research, Education and Clinical oncological services. MCC is being developed as a postgraduate institute of oncology. The institution is in the process of developing and establishing a unique Clinical Research department to coordinate clinical research activities. It is our immense pleasure to disclose the research association MCC has

with School of Health Sciences, Kannur University, Centre for Electronic Materials Technology, Thrissur and P.S.Vaidhyarathnam Ayurveda College, Kottakkal, HTIC-Chennai, National cancer Grid which are expected to bring in revolutionary changes in the management of cancer. Malabar Cancer Centre has been recognized as Research Institute by Kerala University of Health Science.

The control and management of the Society are vested in the Governing Body consisting of 23 members with the Hon'ble Chief Minister of Kerala as the Chairman, Hon'ble Minister for Health as Vice Chairman and Hon'ble Minister for Power as Alternate Vice-Chairman. The routine activities and functions of the Centre are supervised by the Executive Committee, with the Secretary, Department of Health and Family Welfare, Government of Kerala, being the Chairman of the Committee. The members in the Governing Body and Executive Committee are functioning by virtue of their official positions. The institute has grown to have highly sophisticated facilities to provide cancer care. The hospital has very well trained staff, rendering cancer care to the needy.

MCC Profile at a Glance (2016-17)

Patients	2016-17	Cytology	2260
New Cases	4480	Biochemistry	26101
Non Cancerous Cases	1820	Urine analysis	1106
Follow up cases	55524	BMA	526
Non Cancerous ases(FU)	1833	Peripheral smear	448
Total patients	63657	Community Oncology	
In patients	4017	Volunter Training Programme (ECDC)	33
Surgical Oncology		Cancer Awarness Classess	41
Major Surgeries	1201	Early Cancer Detection Camps	138
Minor Surgeries	453	Exhibition	37
Total surgeries	1654	Screening Test	3890
Scopies	2366	No.of Fluid	581
Radiation Oncology		Transfusion Medicine	
RT patients in fractions (cobalt)	8606	Blood Donation	1224
Number of New Patients(RT Cobalt)	492	Component Preparation	7530
Brachytherapy	335	Blood Donation Camp	39
Brachytherapy (pt. bases)	114	ABG	421
RT Simulator	185	Education-Specialities	
IP RT	14892	Medical Doctors	34
OP RT	2942	M.Sc Nursing	13
Linac RT(Total No.of New case)	442	B.Sc Nursing	384
Linac(RT patients in fractions)	20955	M.Sc. Physics	15
RT Elekta(New case)	791	M.Sc. Statistics	1
RT Elekta(Total patients)	10065	M.Sc. MLT	20
RT Elekta(Total No. of fractions)	29178	B.Sc. MLT	84
Imaging Services		Bachelor in Audiology and Speech Language Pathology	19
X-ray	4973	B.Sc. MRT/DRT	9
U S G	1565	B.Tech	8
Mammogram	1830	MSW	6
MRI	1440	OTT	1
CT Scan	3735	ASAP DOT	12
Laboratory Diagnosis		Research	96
Histopathology	4907	Publications	20
Haematology	24708	Conference/Workshop/Seminar	20
Biopsy	3008		
FNAC	982		

HIGHLIGHTS FOR THE YEAR 2016-17

- Installed the latest high end ultrasound (Toshiba Aplio 500) in Imageology department of MCC
- MIM soft ware for radiation contoring and planning
- Immuno Assay Access-2 for Tumor Markers
- CVAD Clinic has been started
- Athjeevanam Project at Neeleswaram Block Panchayath
- Aware & Awake: Online Cancer Awareness Project in association with National Service Scheme, IHRD and funded by V-guard Industries Ltd.

Achievements



- Dr. Saina Sunilkumar: District Collectors Best Performance Doctor's Award



- Chief Ministers Award for Personal Management



- Bagged Kerala State Pollution Control Award 2016-17

DEPARTMENTS AND DIVISIONS

Sl. No	Name of the Department	Divisions under the Department
1.	Department of Radiation Oncology	<ul style="list-style-type: none"> ■ Radiation Oncology Division ■ Radiation Physics Division
2.	Department of Imageology	<ul style="list-style-type: none"> ■ For administrative purpose, this Department presently will be under Department of Radiation Oncology
3.	Department of Clinical Hematology and Medical Oncology	<ul style="list-style-type: none"> ■ Clinical Hematology Division ■ Medical Oncology Division ■ Division of Medicine ■ Division of Pediatrics/Pediatric Oncology
4.	Department of Respiratory Medicine and Critical Care	<ul style="list-style-type: none"> ■ For administrative purpose, this Department presently will be under Department of Clinical Hematology and Medical Oncology
5.	Department of Surgical Oncology	<ul style="list-style-type: none"> ■ Surgical Oncology Division ■ Division of Rehabilitation Physiotherapy, Speech and Swallowing therapy ■ Division of Gynaecology/Gynaecologic Oncology ■ Clinical Nutrition and Dietetics
6.	Department of Clinical Laboratory Services and Translational Research	<ul style="list-style-type: none"> ■ Oncopathology Division ■ Molecular Oncology Division ■ Biochemistry Division ■ Microbiology Division ■ Blood Bank and Transfusion Medicine Division ■ Genetics Division(including Cytogenetics)
7.	Department of Cancer Registry and Epidemiology	<ul style="list-style-type: none"> ■ Cancer Registry and Epidemiology Division ■ Medical Records Division ■ Health Information Technology Division(Presently under Director) ■ Clinical Research and Biostatistics Division (Presently under Director)
8.	Department of Community Oncology	<ul style="list-style-type: none"> ■ Community Oncology Division ■ Tobacco Cessation Division
9.	Department of Onco Anesthesiology	<ul style="list-style-type: none"> ■ Onco Anesthesiology Division
10.	Department of Cancer Palliative Medicine	<ul style="list-style-type: none"> ■ Psycho-Oncology and Clinical Psychology Division ■ Home Care Services Division.
11.	Department of Dentistry and Rehabilitation	<ul style="list-style-type: none"> ■ Dentistry and Rehabilitation
12.	Department of Engineering and Maintenance	<ul style="list-style-type: none"> ■ Engineering & Maintenance
13.	Department of General Administration	<ul style="list-style-type: none"> ■ General Administration Division ■ Hospital Administration ■ Academic Division & Library and Information Science ■ Public Relations and Clinical Services Division ■ Accounts Division ■ Purchase/Store Division & Pharmacy ■ Human Resources and Establishment Division ■ Security Division
14.	Department of Oncology Nursing	<ul style="list-style-type: none"> ■ Nursing Services Division

DEPARTMENT ACTIVITIES & ACHIEVEMENTS

DEPARTMENT OF RADIATION ONCOLOGY

Dr. Vinin N V	Assistant Professor
Dr. Joneetha Jones	Assistant Professor
Dr. Greeshma.K.E	Assistant Professor
Dr. Shoaib Nawaz.P.N	Assistant Professor
Dr. Arun . P Narendran	Assistant Professor
Dr. Nabeel Yahiya	Assistant Professor
Dr. Anindya Mukherjee	Assistant Professor

Radiotherapy plays a very important role in curing early stage cancer and in relieving symptoms and possibly prolonging life for patients with advanced cancers. Our efforts in the department have always been to offer optimal radiotherapy and comprehensive patient care. Optimal & efficient delivery of treatment not only requires the appropriate infrastructure but also well trained and motivated personnel. Fortunately we are blessed in having all these together.

PATIENT SERVICES:

Treatment Given	Number
Patients treated with Radiotherapy	1797
Treatment on Cobalt	492
Palliative Treatments	411
Radical Treatment	81
Treatment on Linear Accelerator	1305
Number of VMAT	299
Number of 3DCRT	321
Number of Electrons	40
Number of SBRT	5
Number of Hybrid Arc	22
Treatment with HDR Brachytherapy	114
Total number of cases planned on 4DCT	1647
Number of palliative cases	628
Number of curative cases	1019
Total number of cases planned on conventional simulator	139



Dr. Geetha.M
Associate Professor & HOD

Education

- Five MSc Physics students had done their projects in the department under the supervision of physicists.
- Fifth batch of BSc MRT students (KUHS) joined in 01/04/17
- Third Batch of Bsc MRT joined for forth year training in April 2017
- Third Batch of Physics interns joined the department from October 2016 They will be doing their internship for one year. The four students will do their project work along with the routine quality assurance and clinical work.

Research:

Completed Projects:

1. Severe late toxicities among laryngopharyngeal cancers patients treated with different schedules of concurrent chemoradiation at a Tertiary Cancer Care Centre in Northern Kerala, India Dr. Geetha.M, Dr. Vinin. N.V, Silpa.A
2. An audit of response (Clinical & Pathological) following neoadjuvant chemotherapy.Chemotherapy with Paclitaxel and Herceptin in HER 2 Neu positive locally advanced carcinoma breast patients. Dr. Vinin, Dr. Joneetha Jones
3. An audit of pathological response following neoadjuvant Chemotherapy with Paclitaxel and Carboplatin in patients with triple negative locally advanced carcinoma breast Dr. Joneetha Jones, Dr. Vinin.N.V.
4. Detector accuracy comparison for point dose measurements in small fields. Silpa.A, Vipin.M
5. Accuracy of out of field photon dose calculations by a treatment planning system Silpa.A, Dr. Jai Prasad
6. Skin Toxicity in Radiotherapy - A Dosimetric study Silpa.A, Ashitha
7. Dosimetric Effects of two treatment tables used in Mega Voltage Radiotherapy.
8. Comparison of Photoneutron TRACKS in flattened and unflattened beams in medical linear accelerator, Suja.C.A, Hridya Raj
9. Analysis of surface dose from high energy photon beams for different clinical set up parameters, Suja.C.A, Vrinda Raj

10. Comparison of surface dose in unflattened & flattened beams, Suja, Vaisakh
11. Dosimetric dependence of collimator angle on volumetric modulated arc therapy of head and neck cancers, Resmi.K. Bharathan, Arya
12. The effects of Cout-outs on Output, mean energy and PDD of low and High Energy Electrons, Resmi.K. Bharathan, Rasna.K
13. Determination of Virtual Source Distances for Electron Beam, Resmi.K. Bharathan, Mithun
14. Output Factor Measurement of a LINAC, Soumya, Aiswarya
15. Comparison of MLC Leakage in Varian and Elekta Machines, Soumya, Najeeda

Conference/Seminar/Workshop/ Training:

1. Onsite Training MIM software application training 17/04/17 to 18/04/17
2. Participated in operational research course on research methodology in May 2016.
3. Dr. Geetha.M and Ms.Silpa attended the Varian Oncology Summit India – 22-23 July 2016 held at Delhi.
4. Participated in technoscan conducted at MCC in February 2017.
5. Dr. Geetha.M and Mrs. Resmi.K Bharathan attended PRODVANCE a career orientation initiative for young radiation oncologists conducted by ICRO and AROI at Bangalore on 12th and 13th of November 2016
6. Dr Vinin N V participated in Workshop on “Basic Techniques in Molecular Biology in Clinical perspective”- 2016 held at Malabar Cancer Centre , Thalassery from 30 th September to 2nd October 2016.
7. Dr. Geetha and Dr. Joneetha attended Nuclear Medicine CME on “Newer Trends in Imaging in Oncology” scheduled for 25th & 26th March 2017.

New Equipment Acquired:

MIM software for radiation contouring and planning.



STAFF

Sl. No	Name	Designation
1.	Dr.Geetha.M	Associate Professor & Head
2.	Dr.Vinin.N.V	Assistant Professor
3.	Dr.Joneetha Jones	Assistant Professor
4.	Dr.Greeshma.K.E	Assistant Professor
5.	Dr. shoaib Nawaz.P.N	Assistant Professor
6.	Dr. Arun . P Narendran	Assistant Professor
7.	Dr. Nabeel Yahiya	Assistant Professor
8.	Dr. Anindya Mukherjee	Assistant Professor
9.	Dr.Akhil.P. Suresh	Senior Resident
10.	Dr. Advait.M,k	Senior Resident
10.	Mrs.SilpaAjaykumar	Lecturer in Radiation Physics
11.	Mrs. Suja.C.A	Lecturer in Radiation Physics
12.	Mrs. Resmi K Bharathan	Lecturer in Radiation Physics
13.	Mrs. Soumya.N.M	Lecturer in Radiation Physics
14.	Mr.ArunKumar.E.S	Dosimetrist
15.	Ms. Josna	Dosimetrist
16.	Mrs.Sriji Soman	Technician
17.	Mr.RejinishKumar.O.A	Technician
18.	Mrs.Rijisha	Technician
19.	Mr.Nijeesh.P.T	Technician
20.	Mr. Harshal. C.H	Technician
21.	Mrs.Beena.P.K	Technician
22.	Mrs. Dhayna.V	Technician
23.	Mr. Faisal	Technician
24.	Mrs. Gayatri	Technician
25.	Mr.Sandeep	Attender/Mould Room Assistant
24.	Mr. Sujith	Attender
25.	Sheeja Nellikka	Staff nurse

DEPARTMENT OF IMAGEOLOGY

Dr. Satheesh Babu	Associate Professor
Dr. M S Senthilnathan	Additional Professor, Nuclear Medicine

The influence of diagnostic and therapeutic radiology in the field of oncology has been immense with newer technologies finding its way in to the field . One or other modality of imaging are used appropriately depending on the intent of the treatment. Accurate and early diagnosis is the only way at present to cure cancer and good clinico-radiological skill plays an important role in this. This speciality has slowly started diversifying in to many sub specialities and one of the important subspeciality which has influenced oncology is interventional radiology. It is not only important in the therapeutic aspect but also in palliation.

New imageology block was inaugurated in 2008. In the initial phase, department acquired 4 slice CT scan and a Doppler machine. Later, the department acquired state of the art machines like digital mammogram with 3D tomosynthesis, Digital radiography, C-arm, Maxio robot for guidance in interventional procedures and a Radio frequency ablation machine. Recently department acquired high end ultrasound (Toshiba Aplio 500)



Dr Satheesh Babu
Associate Professor

with facility for TRUS biopsy, contrast ultrasound, fusion imaging and multiorgan elastography. We also acquired the Automated Breast Ultrasound (iABUS by Episonica) , which is the first in India in government set up. Doctors and technologist were trained in the modality by the application specialist from Taiwan.

PATIENT SERVICES

Investigations	Number
No.of X rays	5782
USG	1568
Mammogram	1845
CT	6374
MRI full study	1574
MR RT planning	216
MRI screening studies	381
USG guided biopsy	40
USG guided FNAC	88
USG guided aspiration	13
USG guided wire localization	20

USG guided pigtail insertion	1
CT guided FNAC/Biopsies	326
CT guided pigtail	13
Stereotactic wire localization	7
Robot guided RFA	11
Robot guided FNAC/biopsy	8
Barium studies	45
Gastrographin study	12
Videofluoroscopy	
C arm procedures	2
Alcohol ablation	1

Research:

Completed Projects:

- Multiphase CT in the characterization of focal liver lesions – An institutional experience
- CT guided lung biopsy – Diagnostic accuracy and complication rate
- MRI for assessing cartilage erosion in Ca glottis – Radiological pathological correlation
- Two-dimensional or three-dimensional imaging for breast cancer screening? - An evaluation study of sensitivity and specificity from Kerala, India

Conference/Seminar/Workshop/Training:

- Mrs Sheena and Mrs Vini presented posters in National Conference of Indian Society of Radiographers and Technologists (NCISRT) held at Ramoji Film City, Hyderabad on 1st, 2nd and 3rd of September, 2016. Mrs Sheena presented a poster titled “Role of MRI in carcinoma of larynx – A pictorial assay” and Mrs Vini on the topic titled “MRI in Ca tongue- A pictorial review”
- Delivered a talk on “Robotics for sampling: Does it really help- Fancy toy or an indispensable tool” in the conference “Image guided biopsies – All you need to know” conducted by Medanta Medicity on 15th and 16th October 2016
- Delivered a talk on “MCC experience with ablation” in IOCON 2016, conducted by Department of Imageology, Malabar Cancer Center on 11/12/2016.
- Delivered a talk on “Initial experience with Automated Breast Ultrasound” in TECHNOSCAN 2017 conducted by Malabar Cancer Center on 18/03/2017.
- Conducted International Day of Radiology on November 8, 2016. This year the theme was on “breast imaging”. The program was inaugurated by Dr Geetha, HOD of Department of Radiation Oncology and Dr Sangeetha, HOD of Department of Oncopathology. Dr Satheesh Babu, Associate Professor, Department of Imageology took a class on history of breast imaging. This was followed by a talk “Life of a legend” by Mrs Fasma S and “Milestones in the field of radiology and radiotherapy” by Ms Vrinda. This was followed by quiz programme for Bsc MRT students.
- Conducted “IOCON 2016” – A CME on Management of Hepatocellular carcinoma with hands on training in Robotic Planning System in MCC on 11th December, 2016. Faculties included Dr Prathapan V K, Professor of GI surgery, Govt Medical College, Calicut, Dr Roy Santosham, Professor of Radiodiagnosis, SRMC, Chennai and Dr Suyash Kulkarni, Professor, TMH, Mumbai. The talks were followed by hands on training in Robotic Planning system.

New Equipment Acquired:

Installed the latest high end ultrasound (Toshiba Aplio 500) in Imageology department of MCC. It has lot of features specifically useful for oncology. Some of them are

- a. Multiorgan elastography – It has facility to do elastography in breast, thyroid, liver and prostate gland. It measures the elasticity of the lesion and hence helps in characterizing the lesion. Malignant lesions are usually hard and hence will display less elasticity. It has facility for both strain elastography and shear wave elastography. Strain elastography requires graded manual compression, whereas shear wave elastography uses high intensity pulse to measure elasticity. It is also used to do fibrosacn which helps in measuring the elasticity of liver and diagnosing chronic liver disease in early stage when other modalities can hardly diagnose it.
- b. Contrast ultrasound- It involves the administration of intravenous contrast agents containing micro-bubbles of perfluorocarbon or nitrogen gas. The bubbles greatly affect ultrasound backscatter and increase vascular contrast in a similar manner to intravenous contrast agents used in CT and MRI. CEUS has the advantage over contrast-enhanced MRI and CT in patients with contraindications such as renal failure or contrast allergy. CEUS also allows for dynamic and repeat examinations.

- c. Fusion imaging – it helps in fusion of ultrasound images with CT or MRI images and helps in localizing occult ultrasound lesions during biopsies.
- d. Transrectal ultrasound (TRUS) and TRUS guided biopsy – Transrectal ultrasound helps in high resolution imaging of prostate and it also has the capability of doing prostate elastography. Same can be used for accurate guided biopsy from the prostate gland.

STAFF

Sl. No	Name	Designation
1.	Dr Satheesh Babu	Associate Professor
2.	Dr M S Senthilnathan	Additional Professor, Nuclear Medicine
3.	Sheena T P	Technician
4.	Sindhu	Technician
5.	Adarsh	Technician
6.	Vini Raveendran	Technician
7.	Fasna	Technician
8.	Nimmya Parameswaran	Technician
9.	Muhammed Naseem	Technician
10.	Jishna	Technician
10.	Najeeb	Technician
11.	Shabin	Technician
12.	Srinsi	Technician



DEPARTMENT OF CLINICAL HAEMATOLOGY & MEDICAL ONCOLOGY



Dr Chandran K Nair
Associate Professor & HOD

Dr Vineetha	Assistant Professor, Pediatrics
Dr Jithin TK	Assistant Professor, Pediatrics
Dr Praveen Kumar Shenoy	Senior Lecturer, Medical Oncology
Dr Manu Prasad	Senior lecturer, Medical oncology
Dr Anju R Kurup	Lecturer, Medical Oncology

PATIENT SERVICES

O.P.D:	
Total attendance in Hematology OPD:	9348
New Cases in Hematology OPD:	740
Procedures done (O.P + I.P):	
Bone Marrow aspiration/biopsy:	431
Lumbar puncture with Intrathecal drug administration:	371
Intensive Chemotherapy administered in Clinical Hematology (I.P):-	
7+3 Induction Chemotherapy:	18
AML BFM 98 Induction:	1
FLAG salvage chemo:	7
High dose Cytarabine:	48
AML BFM 98 Consolidation:	3
FCR:	6
ALL Induction (BFM 2002):	19
Ph+ ALL Induction (BFM 2002 +Imatinib):	2
ALL REZ BFM 85 relapse protocol:	26
High dose MTX:	76
HyperCVAD:	18
HyperCVAD + Imatinib :	1

APML Induction:	3
HLH 94:	1
DA-EPOCH:	6
Mitoxantrone + Etoposide:	1
ATG:	1
I.V.Immunoglobulin:	4
BMT unit statistics:	
Allogenic HSCT:	5
Autologous HSCT:	17

Education:

Classes for nurses:

- Dr Rafi presented topic “Transfusion in hematological malignancy” for oncology nursing students- October 2016
- Dr CKN presented topic “Multiple Myeloma “ for oncology nursing students-October 2016
- Dr Vineetha presented topic “Acute GVHD-GIT “ for the nurses in MCC-October 2016
- Dr Vineetha presented topic “tumor lysis syndrome” for oncology nursing students-November 2016
- Dr Chandran presented topic “ Basics of Hematopoietic stem cell transplantation” for oncology nursing students-November 2016
- Dr Vineetha presented topic ”Acute leukemia overview” for oncology nursing students-November 2016
- Dr Vineetha presented topic “Wilms tumor ” for Oncology nursing students-December 2016
- Dr Chandran presented topic “ Hodgkin lymphoma” for Oncology nursing students-December 2016
- Dr Rafi presented topic “ Non Hodgkin lymphoma ” for Oncology nursing students-January 2017
- Dr Vineetha presented topic “Neuroblastoma “ for oncology nursing students. January 2017
- Dr Swetha presented topic “ CML ” for Oncology nursing students. February 2017
- Dr Anju presented topic “Hairy cell leukemia ” for Oncology nursing students. February 2017
- Dr Vineetha presented topic “Retinoblastoma “

for Oncology nursing students. February 2017

- Dr Swetha presented topic “ CLL ” for Oncology nursing students-March 2017

Combined Academic Session

- Dr Chandran presented topic “ thrombocytopenia in ICU”-December 2016
- Dr Vineetha presented topic “ Hyponatremia”-December 2016

Unit topic presentations

- “The different faces of autoimmune hemolytic anemia in children”-Dr Vineetha-April 2016
- Dr Swetha presented topic on “Tumor lysis” – August 2016
- Dr Arun presented topic on “Prophylactic cranial RT in ALL” August 2016
- Dr Rafi presented topic on “ AML Induction” August 2016
- Dr CKN presented topic on “CLL treatment” August 2016
- Dr Rafi presented topic on “AML Relapse- Induction treatment” August 2016
- Dr Rafi presented topic on “AML Consolidation” August 2016
- “Treatment of Advanced Hodgkin Lymphoma” –Dr Shweta- September 2016
- “Staging of Hodgkin Lymphoma”-Dr Rafi-September 2016
- “Treatment of early stage Hodgkin Lymphoma” Dr Rafi- September 2016

- “Diagnosis of Hodgkin Lymphoma”-Dr Anju-September 2016
- “Diagnosis of Multiple myeloma” Dr Rafi- September 2016
- Dr Shweta presented topic “Differential diagnosis of Multiple Myeloma” –October 2016
- Dr Rafi presented topic “Transplant eligible Myeloma treatment” –October 2016
- Dr Shweta presented topic “ Transplant ineligible Myeloma treatment” –October 2016
- Dr Rafi presented topic “ Prophylaxis in Hemophilia patients” –November 2016
- Dr Swetha presented topic “ Hemolytic disease of newborn” – November 2016
- Dr Vineetha presented topic “ Neonatal anemia” –November 2016
- Dr Rafi presented topic “DLBCL-staging and treatment of primary disease” –November 2016
- Dr Shweta presented topic “ DLBCL relapse treatment”- November 2016
- Dr Rafi presented topic “ Autoimmune Hemolytic anemia ” –January 2017
- Dr Rafi presented topic “ ALL relapse treatment” –January 2017
- Dr Swetha presented topic “Evaluation of adult ALL ” –January 2017
- Dr Rafi presented “WHO classification of lymphoid malignancies” –January 2017
- Dr Swetha presented topic “ T cell NHL classification ” –February 2017
- Dr Rafi presented topic “ Ph + ALL treatment” –February 2017
- Dr Rafi presented topic “Management of MDS” in the unit-March 2017
- Dr CKN attended Transfusion Medicine CME at MMC, Ulyeri as Faculty and presented topic on “Transfusion medicine support in hematological Malignancies”.
- Dr CKN attended Best of EHA as delegate , Mumbai, presented poster on “Early and Deeper Reduction in Paraprotein Predicts Improved Progression Free Survival in Transplant Ineligible Multiple Myeloma”
- Dr Vineetha attended PHOCON 2016 AT TMH, Mumbai and presented poster on “Lower doses of IVIG is a cost effective treatment option in children with Newly diagnosed ITP ”-November 2016
- Dr Rafi presented topic “Different faces of bicytopenia” at IMA TLY clinical meeting-December 2016
- Dr CKN presented topic “Approach to lymphadenopathy” at IMA Thalassery clinical meet-January 2017
- Dr CKN attended coagulation workshop “CASCADE 2017” as faculty- March 2017
- Dr CKN attended International Myeloma Conference at Delhi as delegate and presented poster on “ Impact of early reduction in paraprotein on PFS in transplant ineligible myeloma”-March 2017
- Dr CKN attended the BMT consensus meeting at CMC, Vellore as delegate-March 2017
- Dr Sharath and Dr Paul from Kerala Health Services were observers in the unit from December to February.
- Dr Chandran took class on “Acute leukemia treatment overview” for doctors from Health service.
- Dr Vineetha took class on “Febrile neutropenia for doctors from health services.

Conference/Seminar/Workshop/ Training:

- Dr Vineetha attended the pediatric solid tumor workshop at TMH on April 22, 23, 24th 2016 as delegate
- Dr Vineetha attended the Summer Pedicon 2016 organised by IAP Thalassery as delegate.
- Dr Chandran K Nair attended ASTHA 2016 CNE at MCC as faculty and presented the topic “Pediatric Oncologic and Hematologic emergencies”.
- Dr Vineetha attended ASTHA 2016 CNE at MCC as faculty and presented the topic “Pediat-

Research:

Ongoing Projects

- Clinical profile and survival analysis of children with Osteogenic sarcoma undergoing limb salvage surgery
- Retrospective audit of Low grade lymphoma cases over the last five year period
- Retrospective audit of Diffuse large B Cell lymphoma cases over the last five year period

Publications:

- “Lower doses of IVIG is a cost effective treatment option in children with newly diagnosed ITP”- Abstract published in Pediatric Hematology Oncology journal special edition November 2016
- “Early and Deeper Reduction in Paraprotein Predicts Improved Progression Free Survival in Transplant Ineligible Multiple Myeloma

”-Abstract published in “Clinical Myeloma lymphoma & Leukemia” journal(supplement) in March 2017

Other activities:

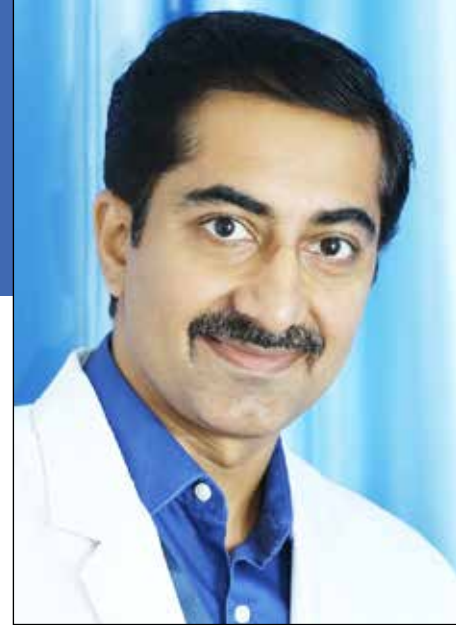
- “Navajeevan 2016”- a get together of HSCT survivors was organized in September 2016 and the “AKSHAYA” fund was officially inaugurated .Also, the awareness pamphlets about BMT and AKSHAYA were distributed.



STAFF

Name	Designation
Dr Chandran K Nair	Associate Professor and H.O.D
Dr Vineetha	Assisstant Professor, Pediatrics
Dr Jithin TK	Assisstant Professor, Pediatrics
Dr Praveen Kumar Shenoy	Senior lecturer, Medical oncology
Dr Manu Prasad	Senior lecturer, Medical oncology
Dr Anju R Kurup	Lecturer,Medical Oncology
Dr Aboobacker Muhammed Rafi	Fellow, Hemato-oncology and BMT
Dr Sweta Gupta	Fellow, Hemato-oncology and BMT

DEPARTMENT OF SURGICAL ONCOLOGY



Dr. Sajith Babu T.P.
Associate Professor

Dr. Satheesan B	Professor & Director
Dr. Sajith Babu	Associate Professor & Head
Dr. Sampada Desai	Associate Professor
Dr. Adarsh Dharmarajan	Assistant Professor
Dr. Dipin J	Senior Lecturer
Dr. Nizamudheen	Assistant Professor
Dr. Santhosh Kumar	Assistant Professor

The Department of Surgical Oncology had a good year during the period of April 2016 to March 2017.

ACTIVITIES & ACHIEVEMENTS

PATIENT SERVICE:

Total Number of Major Surgeries Performed: 1089

Site	Site	Number
1	Head and Neck	380
2	Breast	343
3	GIT	197
4	Urology	41
5	Gynecology	139
6	Bone & Soft tissue	59
7	Thoracic	02
8	Neurosurgery	01
	Total	1175

Major surgeries done in Brachy OT - 17

Minor Surgeries done in Brachy OT: 442

Total number of Endoscopic procedures done

Sl No	Procedure	Number
1	DLDP	1150
2	OGD	537
3	Bronchoscopy	60
4	Colonoscopy	240
	Total	1987

Education:

The routine academic activity of the Department were:

- Monday : Case discussion
- Tuesday to Friday : Short topic discussion
- Saturday : Grand rounds

Other training programmes conducted:

- Introduction to surgical oncology
- Surgical skill training
- Micro vascular training

Training to students:

- Fellowship in Head and Neck Oncology: Fifth batch of fellowship in Head and neck oncology completed their course in July 2016 and sixth batch of two students started their course in Aug 2016.
- Fellowship in Surgical Oncology : Dr. Shamna M successfully completed fellowship in Surgical Oncology in Aug 2016
- Training for MS students : Trained five MS (General Surgery) students from various Medical Colleges in Kerala.
- Training for BASLP students: Trained 20 students for one month each, in speech &swallowing therapy
- Trained 30 students during this period who had come for posting in the department.
- Dr. Santhosh Kumar got trained in microvascular techniques from AIMS, Kochi in wet lab.
- Conducted a basic surgical and microvascular training for fellows and trainees in June 2016.

Conference/Seminar/Workshop/Training:

- Dr. Sajith Babu made an oral presentation on “Submandibular gland flap”at Sialology workshop held at Amrita Institute of Medical Sciences, Kochi
- Dr. Sajith Babu was an Invited speaker for the Master course on Oral Cancer Management, organized by dept of head and neck surgical oncology, Tata Memorial Centre held at Tata Memorial Hospital, Mumbai on 22nd -23rd July 2016 and gave lecture on “ Local flaps in oral cancers” and chaired sessions on marginal mandibulectomy live surgery and postoperative rehabilitation of head and neck cancer

patients.

- Dr. Sajith Babu made a video presentation on “submental flap for maxillectomy defects” at National conference of FHNO, conducted at New Delhi, on 12th Oct- 15th Oct 2016.
- Vascular techniques in anastomosis- a hands-on work shop was conducted in June 2016

Research:

Ongoing Projects

- Retrospective survival analysis of head and neck cancer patients- Dr. Sajith
- Deciphering the alteration/s in molecular network of oral pre-cancer and cancer cells by genetic landscaping- Dr. Sajith

Achievements:

- Dr. Sajith Babu got selected for ICRETT fellowship from UICC for doing an observorship at MSKCC.
- Dr. Sajith Babu completed Global Online Fellowship conducted by the IFHNOS.
- Department developed a fibula bone holder for use in harvesting the fibula free flap used for reconstruction of mandible defects
- Installed the equipment for navigation for neuro and skull base surgery in June 2016.



DIVISION OF CLINICAL NUTRITION AND DIETETICS



Ms. Reena C.
Dietitian

PATIENT SERVICE:

Total Number of patients seen in OPD 3505

Total Number of patients seen in IP 6978

Education:

- The routine academic activity of the department : presentation regarding Nutrition Oncology and related subject for Fellow and trainees.
- Fellowship in Nutrition Oncology
Training given to Twelve Assistant Dietician students Four MSW students in Dietary management.

Conference/Seminar/Workshop/ Training:

- Presentation on “Safe food as healthy food” on january 29th 2017 organized by Food safety department, kerala for school children
- Healthy diet for academic achievement” at Sree Narayana college, Thottada, Kannur for College students on 4/2/2017
- Diet in geriatric” – at Panoor Higher secondary school for elderly population on 18/2/17 conducted by health department, Govt of Kerala.
- ”Adolescent Nutrition” class conducted at Pan-nor CHC for Health department staff, organized by DMO office Kannur on 23/4/2017
- “Pre adolescent Nutrition” class conducted at pannianoor CHC for Health inspectors on 25/5/2017, organized by DMO office Kannur

- Faculty in PinkRibbon day seminar “ Importance of Diet in prevention and management of Breast cancer”- October -2016

Publications:

- Article on Role of Diet in Cancer prevention, published in Arogya masika, health magazine, mathrubhumi, kerala march 2017
- Arthritis we can manage with diet, published in health magazine, arogyamasika on February 2017
- Rice is it healthy article published in arogy-amasika on December 2016
- A article regarding dietary role in prevention and management of kidney stone publishe in October 2016 at arogyamasika
- On November 14 th 2016, wrote an article in Malayala manorama daily news paper diet for healthy Children

Others

- Part of e- diet software developed by MCC along with HTIC
- Participated as delegate in TECHNOSCAN '17 held on March 2017

DIVISION OF REHABILITATION PHYSIOTHERAPY SPEECH & SWALLOWING THERAPY



Smt. Roopa
Physiotherapist

PATIENT SERVICE:

IP 2495
OP 893

Conference/Seminar/Workshop/Training:

- Participated in BLS & ACLS (American Heart Association) training programme at MCC August 2016
- Faculty in PinkRibbon day seminar “Importance of physiotherapy in Breast cancer” - October -2016
- Participated as delegate in “National conference on Recent innovations in Nursingcare-our contribution” at MCC November 12, 2016
- participated as delegate in TECHNOSCAN '17 held on March 2017

Publications:

- Wrote article -Arogyamasika “Sthanarbudhavum Physiotherapiyum” -April 2016.

DIVISION OF SPEECH AND SWALLOWING



Shri. Aneeth
Speech therapist

A speech language pathologist is a medical professional specifically trained to diagnose and treat speech, language & swallowing disorders.

Here at MCC we provide expert swallow and speech pathology services on both inpatient and out patient basis. Doing swallowing and speech rehabilitation

of head and neck cancer patients

planned treatment for speech, voice & swallowing functions.

- Informal assessment of articulation and voice skills.
- Swallowing assessment (bedside/FEES/videofluoroscopy).

During treatment

Radiotherapy in combination with chemo or alone may produce tissue changes that resulting in alteration in speech, voice or swallowing...

- At MCC we are providing oral motor, laryngeal or pharyngeal exercises in an attempt to strengthen and maintaining range of motion, precision & mobility of the structures needed for voice, speech & swallowing.

Post treatment

Speech/voice & swallowing function will be affected by the extent of resection, the type of reconstruction & the added affect of radiotherapy and chemotherapy.

ACTIVITIES

We are seeing the patient with head and neck at their various stages of medical assessment & giving treatment accordingly:-

Pre treatment

- At MCC we are counseling the patients and family members regarding the implications of

- At MCC we are assessing the functional communication skills with provision of appropriate treatment and also assessing or reassessing the swallowing function with provision of appropriate treatment including the use of specific swallowing maneuvers & postures, swallowing therapy focusing on the use of specific oral, laryngeal/ pharyngeal exercises.

Patient Service:

- Counseling- Pre and post treatment counseling
- Swallowing assessment- Clinical, subjective and objective
- Swallowing therapy- Postures, maneuvers and ROM exercises
- Speech therapy- Alaryngeal speech training
- Voice therapy

PATIENT SERVICES

Speech consultation	1200
Swallowing therapy	287
Swallowing assessment	282
Speech therapy	49
Voice therapy	41
videofluoroscopy	30

Education:

- Giving swallowing and speech rehabilitation training to BASLP students from marthoma college of speech and hearing –kasargode from 20/09/2012 onwards

held on 29th and 30th of may 2016 at Baby memorial Hospital, Calicut kerala.

- Attended a day seminar on laryngology update 2016 organized by Trivandrum KIMS hospital.

Conference/Seminar/Workshop/ Training:

- Attended and actively participated in the 9th annual conference of Indian speech and hearing association- kerala state branch held on 22nd & 23rd october 2016, at dhoni palakkad kerala.
- Attended and actively participated in the seminar on advances in assessment and management of vestibular and swallowing disorders

Publications:

An article about Speaking again after laryngectomy in a newslet Abhayam released by MCC

The current and future visions of the divisions

- To continue providing quality service to the patients
- To start a certificate course on Dysphagia rehabilitation following head and neck cancers
- Growth of the Department

STAFF

Name	Designation
Mrs Reena Rajesh	Dietician
Mrs Roopa V	Physiotherapist
Mr Aneeth MV	Speech & swallowing Therapist

DEPARTMENT OF CLINICAL LABORATORY SERVICES AND TRANSLATIONAL RESEARCH



Dr. Sangeetha.K.Nayanar
Professor & Head

Dr.Aswathi.Krishnan	Assistant Professor
Dr.Sithara Aravind	Assistant Professor
Dr.K J Philip	Assistant Professor
Dr.Noushad	Assistant Professor

Diagnostic services in the clinical laboratory at Malabar Cancer Centre was initiated in 2001 with a staff strength of one Pathologist, one cytotechnologist, four technicians & two laboratory assistants and the following sections were functional. Diagnostic reporting work in Oncopathology was restarted in April 2011 with the joining of a visiting Pathologist & all hospital cytology samples like FNAC & effusion fluids were processed along with slide review of all referral cases. The clinical laboratory had a staff strength of one senior resident in Pathology & four laboratory technicians. The existing histopathology equipments were serviced, new ones like manual rotary microtome was purchased. In the course of the year Surgical Pathology was also restarted and the department acquired new staff including one Professor & three Assistant Professors, technical staff including a Histo technologist, a cytotechnologist & cytotechnician. Cryostat was installed in September 2012 for taking frozen sections to aid in intra-operative diagnosis. Immunohistochemistry staining was installed in November 2012 enabling breast cancer patients to have ancillary hormone analysis. These tests were being outsourced till then which was causing financial burden & inconvenience to the patients.

PATIENT SERVICES:

Clinical reports of Histology, Cytology & Camp cytology

1	BIOPSY	3013
2	SOB	1919
3	SOC	501
4	FN	967
5	FC	581
6	GC	187
7	PS	988
8	BMA/BMT	489
9	SOBMA/SOBMT	136

Education:

- Commenced Fellowship programmes in Oncopathology & Head & Neck Oncopathology for MD.Pathology & MDS Oral Pathology candidates, respectively.
- Training for Post graduate students – MD.Pathology & MDS. Oral Pathology from dif-

ferent government & private institutions.

- Training programmes for BSc.MLT final year students of government & private medical colleges and paramedical institutes of Kerala
- Training for staff nurses of PHC in doing Pap smear testing.

Conference/Seminar/Workshop/Training:

- Continuing laboratory education, 2nd edition -June 2016
- Conference TECHNOSCAN 2017-March 2017
- Poster presentation on Extensive intraductal positive carcinomas of breast- Retrospective audit of 4 years-Dr.Noushad A at APCON 2016,Jaipur
- Poster presentation on Papillary neoplasms of breast- Retrospective audit of 4 years-Dr.Sithara A at APCON 2016,Jaipur
- Paper presentation on Anaplastic carcinoma of Thyroid- Retrospective audit of 5 years-Dr. Manjusha P,Fellow in Head & Neck Pathology at IAPM State chapter meeting Feb 2017,Govt. medical college,Calicut.
- Case presentation on Spindle cell variant of embryonal rhabdomyosarcom in paratesticular region-IAPM State chapter meeting Feb 2017,Govt.medical college,Calicut by Dr.Sajith KS,Fellow in Oncopathology.
- Thyroid cancer conclave organised by Lake shore hospital,Kochi, April 2017-Dr.Sangeetha presented Bethesda system of reporting thyroid cytopathology as Faculty
- International conference & Workshop on Cancer genetics-the Genetic testing & counselling Guidelines-ACTREC.Mumbai in Dec 2016-attended by Dr.Sangeetha K Nayanar
- Poster presentation on Comparison of Conventional & Liquid based cytology in Cervical Pap smears in ECDC setting-Nimi GK, Sabna Dev,Dr.Sithara A,Dr.Sangeetha K in TECHNOSCAN 2017-March 2017
- Poster presentation on Immunocytochemistry in FNA of various lesions-Dr.KJ Philip,Dr.Sangeetha K in TECHNOSCAN 2017-March 2017

Research:

- Clinicopathologic correlation between Microsatellite instability & Colorectal cancers-

an approach by IHC and molecular testing-Dr.Sangeetha K,Dr.Noushad A, Dr.KJ Philip, Dr.Deepak Roshan

- Prognostic efficiency of clinico-pathologic scoring in predicting lymph node metastasis in oral squamous cell carcinoma-Dr.Sangeetha K,Dr. Jaya P Tripathy,Dr.DSA Karthickeyan,Dr.Sajith Babu (in collaboration with the Union for Tuberculosis & Lung diseases)

Grants & Schemes

- Intramural funding for study “Clinicopathologic correlation between Microsatellite instability & Colorectal cancers-an approach by IHC and molecular testing”

Publications

- Case report on Sarcomatoid carcinoma of Urinary bladder-Dr.Noushad.A. Dr.Sangeetha K-Scholars journal of medical case reports
- Case report on Spindle cell variant of embryonal rhabdomyosarcom in paratesticular region-Dr. KJ Philip,Dr.Sangeetha K-Scholars Journal of medical case reports
- Low grade central osteosarcoma-a case report-Dr.Sithara A, Dr.Varadaraj P
- Extensive intraductal positive carcinomas of breast- Retrospective audit of 4 years-Dr.Noushad A, Dr.Sangeetha K- Sholars Journal of applied sciences
- Papillary neoplasms of breast- Retrospective audit of 4 years-Dr.Sithara A,Dr.Noushad A

New Equipments Acquired

- Installation of new equipment namely, Grossing work station which will make specimen grossing more easier and reduce the side effects of formaldehyde exposure.
- Purchase of five new high end binocular microscopes from Carl Zeiss.
- Purchase of new semi-automated microtome from Thermo Fischer.



STAFF

Name	Designation	
1	Dr.Sangeetha.K.Nayanar	Professor & Head
2	Dr.Aswathi.K	Assistant Professor
3	Dr.Sithara Aravind	Assistant Professor
4	Dr.K J Philip	Assistant Professor
5	Dr.Noushad	Assistant Professor
6	Sabna Dev. S.K	Cytotechnologist
7	Nimi. G.K	Cytotechnologist
8	Dr.Sajith K S	Fellow in Oncopathology
9	Dr.Manjusha P	Fellow in Head & Neck Pathology
10	Padmanabhan. M.V	Trainer in Histopathology
11	Soumya. V.K	Lab Technician
12	Biji	Lab Technician
13	Nithina	Data entry operator
14	Reena K C	Lab assistant
15	Sobha	Ward assistant

BioChemistry Division

Dr. Sindhu E.R.



MCC clinical lab has the facility to do all the biochemical as well as hematological assays. There is two Vitros fully automated biochemical analyzers and one Access 2 tumor marker analyser. For hematological tests we have two Beckman Coulter CBC analyzers in the lab. During the period there was appointed two permanent technical staffs (Mrs. Anisha, Mrs. Sinisha) and one academic staff as Lab in charge (Dr. Sindhu ER).

PATIENT SERVICES:

Clinical reports of Histology, Cytology & Camp cytology

Sl. No	Procedure	Number
1	Heamatology	55000
2	Biochemistry	75000
3	Urine analysis	1800
4	Tumor markers	7200

Conference/Seminar/Workshop/Training:

ECOLI- Continuing laboratory educational programme (one day) in May for students from paramedical colleges and lab technicians from other labs. Participated more than 100 students and lab personals from various colleges and clinical labs.

STAFF

	Name	Designation
1	Dr. Sindhu E. R.	Lab in charge
2	Mrs. Mini	Lab Technician
3	Mrs. Namitha	Lab Technician
4	Mr. Anish	Lab Technician
5	Mrs. Dhanya Prabha N	Lab Technician

6	Mrs. Aneesha	Lab Technician
7	Mrs. Sinsha NP	Lab Technician
8	Mr. Gokul	Lab Technician
9	Ms. Ajisha	Lab Technician
10	Mrs. Akhila	Lab Assistant

Microbiology Division

Dr. PRATHAPAN

Associate Professor



The Division of microbiology at Malabar Cancer Centre is committed to providing accurate and reproducible results on clinical material within the shortest possible time. This department provides test turnaround times suitable to clinical situation in which the tests are requested This has been achieved by round the

clock laboratory services, reporting and use of state of the art equipment.

The department offers specialized diagnostic services in the areas of:

- Bacteriology
- Mycology (Fungal infections)
- Mycobacteriology (Tuberculosis)
- Examination of urine and stool
- Serology for viral and bacterial infections.

- Molecular diagnostic methods for viral infections.
- The quality systems are compliant with the ISO 15189 standard guidelines.
- Automated state of the art equipment is available for blood cultures, and molecular diagnostics.
- The department provides services on all days of the week. The technologists and staff of the department are trained to work independently, to ensure smooth functioning and compliance with the quality systems.
- The menu of tests includes all the facilities required for the diagnosis and management of infections in cancer patients. The department provides services for environmental testing and water testing in the hospital infection control.
- Implementation of best practices for infection control including surveillance of healthcare associated infections is under the scope of Microbiology.
- Microbiology division is heading the all important Hospital infection control program. For which various activities are undertaken to minimize (reduce) the rates of infection there by providing for a safe environment to the patients as well as to the Staff.
- One Month training Program conducted for undergraduate and post graduate students of various colleges.

PATIENT SERVICES:

S.No.	Sample Type	Sample number
1	Urine	1532
2	Blood	2006
3	Respiratory(Sputum, throat swab, BAL) Pus (wound Swab/ swab/ dead tissues/ Exudates)	1862
4	AFB Staining	194
5	Gram Staining	199
6	Fungal culture	84
7	KOH Mount	76
6	Environmental Swabs	223
7	Serology	98
8	Staff free investigation	16
9	Blood bag quality check	56
10	CMV PCR(Molecular diagnosis)	110

Conference/Seminar/Workshop/ Training:

- Dr. R. Parthiban participated in BLS and ACLS workshop at MCC from 03-03-17 to 05.03.17
- Dr. R. Parthiban attended workshop on Good Clinical Laboratory Practices-ISO 15189:2012 organized by YRG Care and SRI RAMACHANDRA UNIVERSITY, Chennai from 23.03.17 to 25.03.17

Research:

- Dr.R. Parthiban, co-principal investigator for Ph.D Dissertation work entitled " Studies on the



prevalence of opportunistic microorganisms in oral cancer patients - a microbiome approach

STAFF

New Equipments Acquired

- ELISA PLATE READER WITH WASHER
- PCR PLATE CENTRIFUGE
- PCR CABINET
- THERMOSTATIC WATER BATH
- VDRL ROTATOR
- ANEROBIC CHAMBER
- ANEROBIC JAR

	Name	Designation
1	Dr. Gufran Ahmed	Visiting Consultant
2.	Dr.R.Parthiban	Associate Professor
3	Dr. Sajani Samuel	Assistant Professor
4	Mrs. Ramitha	Lab Technician
5	Mr.Deepak Omanakuttan	Lab Technician
6	Mrs. Sinisha	Ward Assistant

Blood Bank and Transfusion Medicine Division

Dr. Mohandoss
Assistant Professor



The Division of Transfusion Medicine (Blood Bank) has state of art facilities catering patients requiring blood transfusion in and around Thalassery. At MCC, the transfusion services forms an integral component of manage-

ment in cancer patients. The Blood Bank provides quality blood products to patients by using latest technology for blood collection, processing and testing. For the last 3 years, blood is being issued as only blood components (100%). Single unit of blood donation is split into three different blood components, which can be used for three patients.

The Blood Bank has latest apheresis equipments for collecting single donor platelets (SDP). In the year 2016; around 700 units of SDP were issued to our patients.

Most cancer patients require modified blood products for their transfusion. We cater their needs with latest technology for blood irradiation, leuco-depletion, washed blood products.

In addition to routine blood bank activities, blood bank supports bone marrow transplant program, facilities for HLA Typing, Flow Cytometry, We participate in EQAS program organized

by BEQAS, Jaipur for blood bank activities. We continue to focus on improvement in quality of blood transfusion services and strive towards safe blood transfusion.

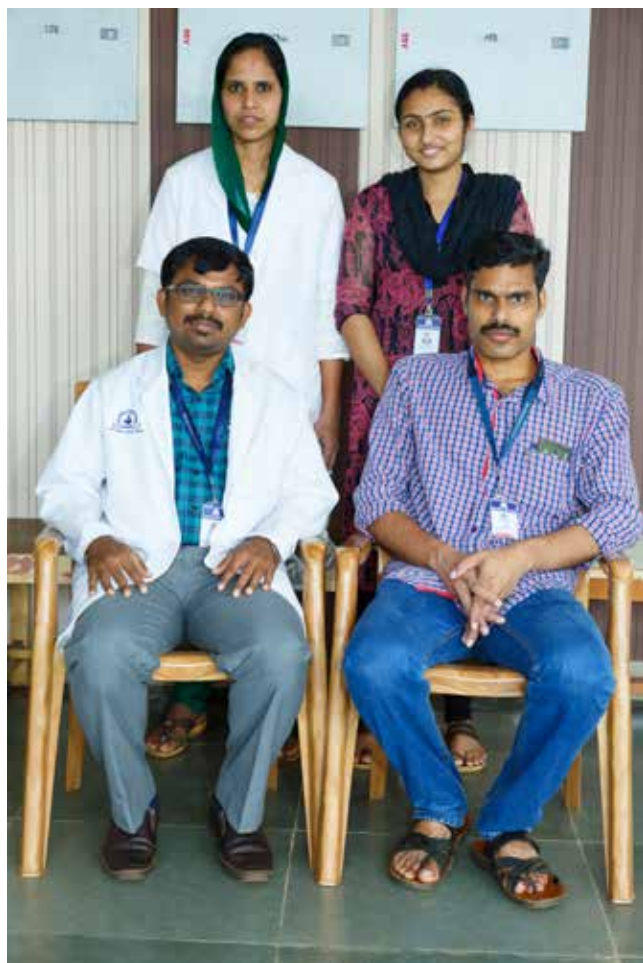
- To minimize preventable blood transfusion reaction, the blood bank continues in preparing buffy coat depleted blood components using automated blood component extractor equipment for our hospital patients.
- Most SDP units were suspended in Platelet Additive Solutions for minimizing transfusion reactions.
- HLA typing for bone marrow transplantation was performed on a routine basis.
- Our blood bank continues to issue blood only in form of blood components (100%).

PATIENT SERVICES:

Sl. No	Procedure	Number
1	whole blood donations	4455
2	apheresis platelet donations collected	341
3	voluntary outdoor blood donation camps	39
4	Total blood Components Issued	8407 units

Conference/Seminar/Workshop/ Training:

- Mrs. Sabita Koova, Staff Nurse attended NACO training Program for Nursing Staff in Blood Bank, SCTIMST from 22.6.16 to 24.6.16
- Mrs. Thahira, attended NACO training program for Lab Technicians in Blood Bank, SCTIMST from 27.6.16 to 01.07.16
- Mr. Sabeesh & Mr. Shibin attended workshop on



Nucleic Acid Amplification Technique, organized by IMA Ernakulam on 27.12.16.

- Dr. Mohandoss attended PG workshop & Training “JHAKAAS”, organized by JIPMER, Puducherry from 17.2.17 to 19.2.17
- Dr. Mohandoss delivered guest lecture titled “Transfusion Practices in Pediatric patients” in CME titled ASTHA 2016 on 12.6.16 at MCC
- Dr. Mohandoss delivered guest lecture titled “Special Blood Components” in CME titled ABC in Transfusion Medicine on 14.6.16 at Malabar Medical College, Kozhikode
- Mr. Shibin presented case presentation titled “Resolving ABO Serological Discrepancies” at CLE titled ECOLI 2016 at MCC
- Dr. Mohandoss attended CME in Transfusion Medicine Update 2016 at KMC Manipal
- Dr. Mohandoss attended International Conference – Joint Congress of AABB & AATM at Bengaluru from 9.12.16 to 11.12.16
- Dr. Mohandoss attended CME on Nucleic Acid Amplification Technique, organized by JIPMER, Puducherry on 17.2.17
- Dr. Mohandoss delivered guest lecture titled “Rational Use of FFP and Cryoprecipitate” in 26th Kerala Chapter CME on 26.2.16, organized by IMA Kollam
- Mr. Anoop Joy - Oral Presentation: Fibrinogen Recovery In Two Methods Of Cryoprecipitate Preparation
- Mr. Sajeesh - Poster Presentation: Red Cell Contamination In Leukapheresis Product- A Comparison Between Intermittent And Continuous Flow Apheresis Devices.

Facilities Available:

- 24 x 7 Blood Bank
- Blood Components – Packed Red cells, Platelet concentrate, Fresh Frozen Plasma, Cryoprecipitate
- Apheresis – Platelets
- HLA typing
- Flow cytometry
- Stem Cell Collection and Cryopreservation
- Irradiation of blood components

Publications:

- Soumya Das, Shamee Shastry, M. Murug-

esan, Poornima Baliga B What is it really? Anti-G or Anti-D plus Anti-C: Clinical Significance in Antenatal Mothers.; Indian J Hematol Blood Transfus DOI 10.1007/s12288-016-0729-0.

New Equipments Acquired:

- Fully Automated Blood Grouping Equipment – by Electromagnetic Technology

STAFF

	Name	Designation
1	Dr. M. Mohandoss	Assistant Professor
2	Mr. Sabeesh	Technicians
3	Mr. Shibin	Technicians
4	Mr. Anoop Joy	Technicians
5	Mr. Sajeesh	Technicians
6	Mrs. Soumya	Technicians
7	Mrs. Thahira	Technicians
8	Mrs. Sujatha	Nursing Staff
9	Mrs. Sabita Koova	Nursing Staff
10	Mr. Arun	Lab Attender
11	Ms. Savya	Blood Bank Counsellor

Division of Genetics and Cytogenetics

Dr. Deepak Roshan

Assistant Professor



Division of Genetics and Cytogenetics is mainly focusing to understand the molecular mechanism of tumorigenesis, metastasis and drug resistance of cancers. Division is in a process of development and establishment. The major

research direction of division for “bench to bedside” are following:-

- To explore the molecular mechanisms of cancer; the research fields include genomics, proteomics and signal transduction pathway.
- To understand the genetic factors associated treatment outcome of cancer patients, such as drug resistance and drug toxicity and it will help

in developing personalized therapy system.

Along with molecular research to understand biology of tumorigenesis, Division is also involved in the molecular diagnosis. Presently, translocation analysis of BCR-Abl and PML-RARa is done routinely. Shortly, mutation analysis of genes will be started.

Division is also focused on the HR development by providing short-term training for BSc, MSc, life Science and B Sc MLT students and dissertation works for MSc/MD/MDS students; in near future we will be initiating doctoral course. These academic activities of the division will provide a greater level of exposure to the students in advanced molecular technique used for molecular research and molecular diagnosis.

PATIENT SERVICES

Sl No	Name	Number
1	Quantitative BCR-Abl analysis	230
2	Qualitative BCR-Abl	14
3	PML-RARa analysis	10
4	HLA Analysis	28



Education:

Three month Training given to a student with PhD Bioinformatics specializations.

Conference/Seminar/Workshop/Training:

- Conducted three days Hands on workshop on molecular techniques in clinical perspective

In view of the increasing importance of basic molecular biology techniques in clinical application, the division of Genetics, Malabar Cancer Centre Thalassery is organizing three days hands-on workshop in molecular techniques in clinical perspective.

The aim of this workshop is to provide participants with basic training in molecular biology tools, bioinformatics techniques and scientific concept. The current workshop covers important molecular biology techniques like DNA and RNA isolation, PCR, Real time PCR, electrophoresis, and Sequencing. The training course has been designed especially for the young members with clinical background. We cordially invite you to participate in this clinical oriented workshop in molecular techniques

Two internal faculties participated in the hands on workshop (Dr Sangeetha

K Nayanar (HOD Dept of CLS&TR); Dr. Vinin (Dept of ROG);and externals candidate from JIPMER, TMH, Medical College & Maulana Azad Medical College)

- Oral presentation: Usefulness of PCR in the detection of chromosomal translocation in cancer- CLE 2016, MCC Thalassery

Research :

- Research project funded by KSCSTE on Molecular dissection of pathways altered by different fusion transcripts in CML was started
- Recruited One Project Staff
- Guided two students for MSc Dissertation

Title of projects

- Analysis of expression pattern of PKM1/PKM2 isozymes and MUC1 oncoprotein in CML
- Identification of BRAF and PI3KCA Mutation in oral Carcinoma

Grants & Schemes:

- Received a grand of 23 lakhs from KSCSTE , Govt of Kerala for the project “ Molecular dissection of pathways altered by different fusion transcripts in CML “

STAFF

Name	Designation	
1	Dr. Deepak Roshan VG	Assistant Professor
2	Vincy Augustin	Lab technician
3	Sreeja Kothath	Lab Asistant
4	Sheethel KP	Project JRF

DEPARTMENT OF CANCER REGISTRY & EPIDEMIOLOGY



Dr. Saina Sunilkumar
Lecturer & HOD in charge

Smt. Bindu T	Lecturer in Biostatistics
Sri. Ratheesan K	Lecturer in Biostatistics

Registry is tasked with ensuring good quality cancer data available to inform and drive improvements in standards of cancer care and clinical outcomes, as well as enabling the use of cancer information to support audit and research programmes.

At both the national and community level, cancer registration schemes are central to research into the nature and causation of cancer, to the planning of health service, resources and cancer control programmes, and to the assessment of their efficacy. Cancer registration is thus part of a modern health information system. An accurate picture of the cancer burden depends on the creation of a population-based cancer registry.

Registry can provide an accurate estimate of the future number of cancer patients, to plan the best possible allocation of finite resources to the core elements of cancer control: primary prevention, screening and early diagnosis, treatment, rehabilitation and palliative care.

In collaboration with National Cancer Registry Programme of Indian Council of Medical Research (ICMR), a Hospital Based Cancer Reg-

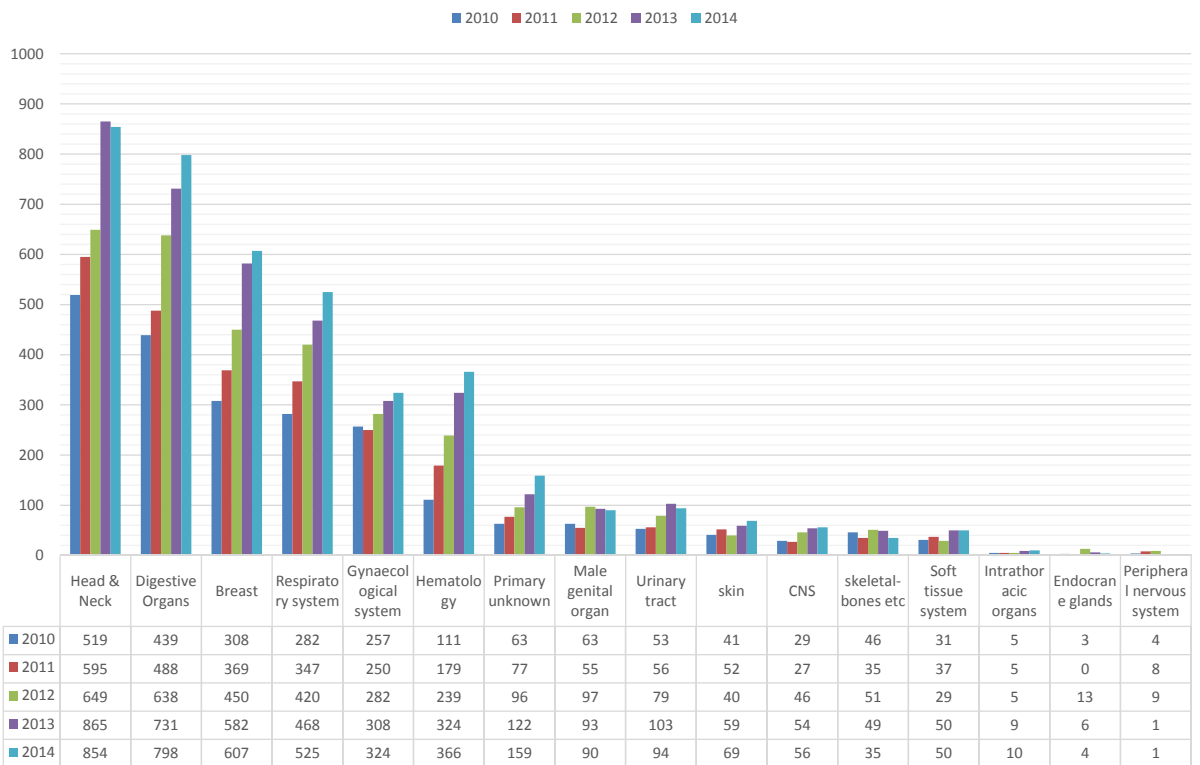
istry (HBCR) was initiated on November 2010 and started functioning from February 2011 onwards. This department was set up to provide the cancer statistics reported at MCC and the information on patient care. HBCR is partially supported by NCRP- ICMR.

Hospital Based Cancer Registry:

The department started hospital based cancer registry for the year 2010 partially supported by the ncrp, icmr, Bangalore and published five Annual reports of Hospital Based Cancer Registry from 2010 to 2014. Hospital-based cancer registry is concerned with the recording of information on the cancer patients seen in the hospital. The main purpose of hospital based cancer registry is to contribute to patient care by providing readily accessible information on patients, the treatment they received and its result. The data are used mainly for administrative purposes and for reviewing clinical performance.



HBCR REPORT(2010-14)

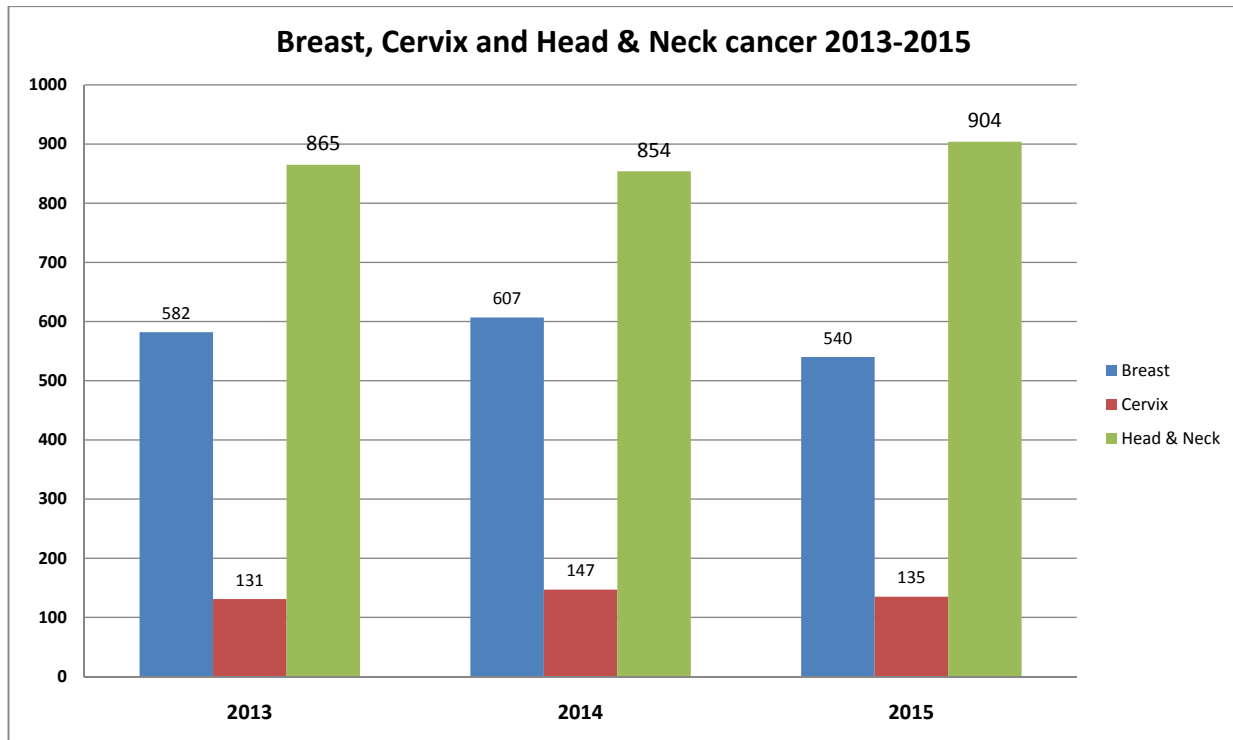


Malabar Population Based Cancer Registry:

The Malabar Population Based Cancer registry was launched in 2014 for three districts Kannur, Kasaragod and Mahe. Population-based cancer registries seek to collect data on all new cases of cancer occurring in a well-defined population. Usually, the population is that which is resident in a particular geographical region. As a result, and in contrast to hospital-based registries, the main objective of this type of cancer registry is to produce statistics on the occurrence of cancer in a defined population and to provide a framework for assessing and controlling the impact of cancer in the community.

Patterns of Cancer and Survival Studies:

Surveillance programme on cancers of the breast, cervix, and head and neck patients reporting to the MCC in collaboration with NCRP was started 2013. A total of 1729 breast cancer, 413 cervix cancer and 2623 Head and Neck Cancer was included in the study from the year 2013 to 2015.



Lifestyle and Cancer:

To assess the epidemiological evidence on diet and cancer and to make public health recommendations, the department started the project titled "Lifestyle and Cancer".

Education:

- One student from Loyolla college completed his internship in the department with specialization Biostatistics

Conference/Seminar/Workshop/ Training:

- Dr. SainaSunilkumar participated in Operational Research Course

- As part of completing Malabar Population Based Cancer Registry a training program about the importance of Cancer Registry was conducted in ICDS meetings, Municipality, PHC/CHC etc.
- Training given to the HI's for the data collection of MPBCR at Nileswar and distributed the procedure manual.
- Conducted Third Advisory Committee Meeting for MPBCR

Research :

- Hospital Based Cancer Registry
- Malabar Population Based Cancer Registry
- Patterns of Cancer and Survival Studies

Publications:

- T. Bindu, Saina Sunilkumar, Ratheesan, Satheesan Balasubramanian Factors Associated with Survival and Lost to Follow up of Cervical Cancer Patients in a Tertiary Cancer Centre in Rural Kerala , Indian Journal of Public Health| Volume 61|Issue 1| January- March 2017.

Grants & Schemes:

Funded Project of NCRP, ICMR-Patterns of Care and Survival Studies (POCSS)

Name	Designation	
1	NCDIR/NCRP/COU/ HBCCR/778/2012/821 dated 12 September 2014	1,10,000.00
	Total	1,10,000.000

Staff

Name	Designation	
1	Dr. Saina Sunilkumar	Lecturer, HOD i/c
2	Bindu T	Lecturer in Biostatistics
3	Ratheesan K	Lecturer in Biostatistics
4	Prachith KS	Coding Clerk

Medical Records Division

Sri. Jayadev G
Medical Records Officer



Medical records department is situated in ground floor adjacent to outpatient departments and reception. It is one of the busiest departments in Malabar cancer centre, on an average 300 files are retrieved and sent to different outpatient departments. All the patient files are kept in movable racks according to the hospital number and the death files are kept separately. Inpatient and outpatient files are kept in separate folder and are arranged in chronological order. We have two types of registration, malignant and non malignant cases. Malignant and Non malignant cases are kept separately according to the hospital number. Malignant case folders are colour coded according to the site of cancer for easy identification.

- Intimation of Death to the Municipality through hospital KIOSK
- Maintenance of death register
- Assembling of IP files
- Deficiency checking
- Diagnosis coding using ICD-10
- Dispatching file upon reporting of patient in registration
- Re Filing of records
- Dispatching file on request from different departments for study purpose
- Providing copies of investigation report on request from patient
- Attaching chemo charts in patients files
- Provides photo copy service to patients and hospital purpose
- Safe keeping of expired file according to hospital number
- Keeping NMC file in separate folder

ACTIVITIES

- Preparation of New files and folders



STATISTICS

OUTGOING FILE DETAILS 2015-2016

Department	No. of Files
Surgical Oncology	30086
Radiation Oncology	17134
Cancer Registry	12039
Reception	5294
4D CT	38353
Medical Oncology	3816
Haemato Oncology	3597
KBF	3057
Gynaecology	2893
Endoscopy	2626
Head & Neck	2503
OP	2305
Palliative	1486
IP	1479
MRD Reserve	1240
Dental	811
Pathology Dept.	798
Brachy OT	416
Day Care	397

Community Oncology	214
Administration	124
Pre Anesthetic Check	99
Director	96
Nursing	96
Day Chemo	76
Physiotherapy	53
Multi Speciality Board	47
CT Scan	42
OT	30
Speech Therapy	29
RT OP	23
LINAC	21

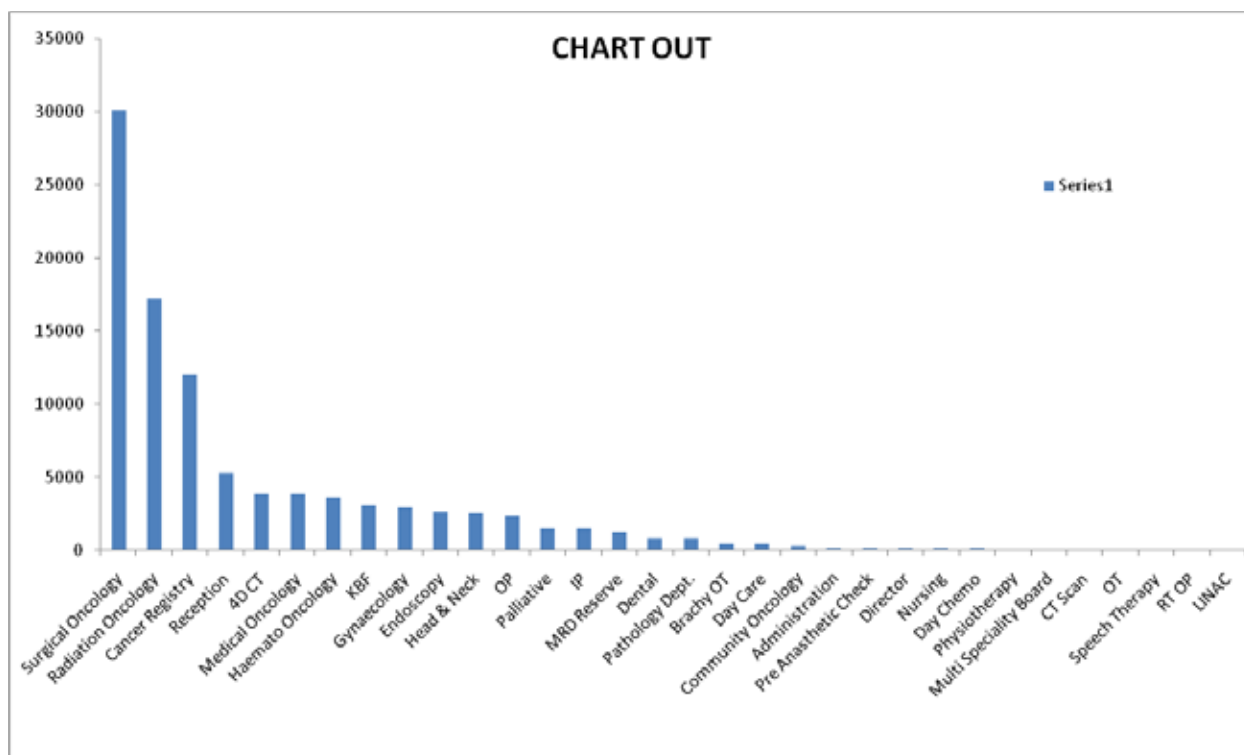
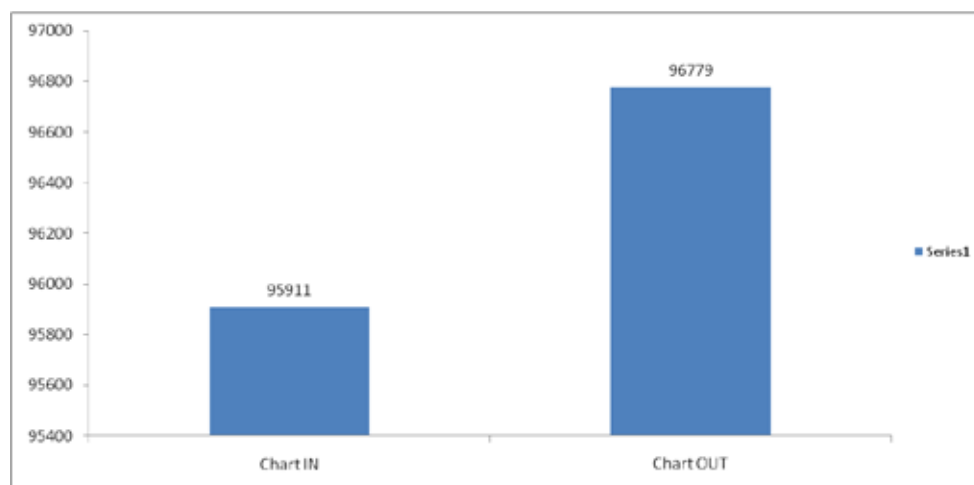


CHART IN & CHART OUT FILE DETAILS

Chart IN	95911
Chart OUT	96779



Total no. of outgoing files	96779
Total no. of returned files	95911
Total no. of death informed	191

Staff

Name	Designation
Jayadev G	Medical Records Officer
Krishnapriya V S	Medical Records Assistant
Nameetha S	Medical Records Attender

Health Information Technology Division

Sri. Ranjith M K
System Manager



Health Information Technology Division under Department of Cancer Registry and Epidemiology is commenced in the year 2012. In a short working span, the division started the development of health care related software's and

has extended support to Malabar Cancer Cen-

tre for its developments in the new arena of Health Information Technology. We are successfully implemented Phase-I of e-Hospital Software of National Informatics Centre. This is an integrated Hospital Management Information System (HMIS) that automate all most all the activities of the hospital and improve patient care. We are designed and developed the e-Palliative software in research collaboration with Centre for Development of Imaging

Technology(C-DIT), Thiruvananthapuram and implemented successfully in association with Department of Palliative Medicine and Local Palliative centers in Kannur Districts. The division started Advanced Diploma in Health Information Technology course in association with C-DIT, as part of MEDIT Programme in 2015 onwards. Also the division is looking forward in research projects, in applications of Health Information Technology for cancer awareness, diagnosis, detection and prevention. This is just the beginning of a new era, where in the world of information technology is going to initiate health information technology.

Health information technology and exchange provides the umbrella framework to describe the comprehensive management of health information and its secure exchange between consumers, providers, government, quality entities, and insurers. Health information technology (HIT) in general is increasingly viewed as the most promising tool for improving the overall quality, safety and efficiency of the health delivery system. Broad and consistent utilization of HIT will: Improve health care quality; Prevent medical errors; Reduce health care costs; Increase administrative efficiencies; Decrease paperwork; and Expand access to affordable care. In line with recent advances in Information Technology, the Health Information Technology Division as the heartbeat of a Digital MCC, provides, operates and maintains effective, dynamic user friendly data systems that will enable the Malabar Cancer Centre to achieve its vision of a centre of excellence.

The main responsibilities of the division are to provide technology vision and leadership in the development and implementation of the organization-wide information technology (IT) program and the planning and implementing of information systems to support both clinical and business operations and achieve more effective and cost beneficial IT operation. The division led to implement the hospital policy for information and associated computer technology. It undertakes broad system development and research and has responsibilities for organizational change to support new system.

Major responsibilities of the division

The major responsibilities of the division are as follows;

- a) Plan for the Information Technology needs of the organization including electronic health records, voice, data, imaging, telecommunication, office automation.
- b) Plans and manages the implementation of new information systems and software acquisitions.
- c) Manages system administration including local area networks.
- d) Researching and installing new systems.
- e) Managing and Administering the official website of the organization
- f) Develop and implement policies and procedures for computer systems and operation and maintains the privacy and security of all IT information.
- g) Ensures the cost-effective expenditure of resources
- h) Perform other relevant duties as identified that support the mission and vision of Health IT division and MCC

Current and Future Vision

The current and future vision includes;

1. To become a fully automated Cancer Hospital and research centre with best programs and technologies available.
2. To facilitate collaborative research work in the area of Health Information Technology including open Source Health Information Systems Research, Learning Management Systems for Health Education, Consumer Health IT Applications, Integrated Disease Information Systems, Clinical Information and Management Systems, Medical Records Digitizing and Archiving Systems, Health Care Support Networks, Health Information Technology Training, Clinical Decision Support System, Clinical Simulation Support System, Computerized Provider Order Entry, Electronic Prescribing softwares, Staff Education systems and management, Virtual space for research and innovation, Open source PACS, etc. with other institutions in the similar field.
3. Develop and implement web based online open source health IT applications for cancer patients.
4. We believe that timely and easy access to information is critical to the pursuit of excellence in

all clinical, academic, research and administrative matters. So we are in the stage of implementing an advanced HIS Software system with adequate Privacy and Security Protections for Personal Health Information.

5. Integrated HIT has the ability to bring all levels of medical care together, from general practitioners to specialists, effectively bridging the healthcare gap experienced by many of our communities where shortages of appropriately trained healthcare providers have been difficult to resolve. Integration of HIT applications will improve quality of care for patients including increased patient safety, enhanced provider to provider sharing of relevant patient information, improved continuity of care, improved access to essential services in underserved areas, simplification of patient education, and decreased costs related to improved efficiencies in management of clinical data and treatment related information.
6. Improved and enhanced use of Tele Health systems, such as Tele medicine, Tele radiology, Tele behavioral health, Tele pharmacy, and distance learning systems utilizing videoconferencing equipment are also emerging as cost-effective ways to improve healthcare quality outcomes. Interoperable HIT systems built with these fundamental components can be utilized to enhance patient safety and continuity of care by streamlining access to critical healthcare information by both clinicians and consumers alike.
7. The process for improvements in health outcomes, clinical quality, or efficiency resulting from the adoption of certified EHR technology
8. To facilitate delivery and retrieval of clinical data to provide safe, timely, efficient, effective, and equitable patient-centered care and the promotion of secure data exchange.
9. Improving the quality, patient safety, access and cost-effective delivery of care as a result of using information technology which facilitates the collective ability of the involved departments to exchange, share and integrate health information.
10. Follows common, nationally-endorsed set of principles and standards for the technology and policy aspects of health information exchange.
11. Develops and implements a technical infra-



structure based on national standards to facilitate interoperability.

12. Improve the quality and efficiency of health care delivery for patients by accelerating the adoption and use of a collaborative model including health information technology (HIT) and health information exchange (HIE).
13. Minimize redundant data capture and storage and to promote evidence-based medical care to improve patient safety and quality.
14. Leverage existing health information systems.
15. Enable care delivery innovations.
16. Allows individuals to quickly and easily access their personal health information electronically, and monitor accuracy and operate in an open and transparent manner.
17. Use digital technology to support patient centered hospital care and extend that care beyond the hospital walls and improve service delivery through Interactive Voice Response (IVR) and Voice over Internet Protocol (VOIP) technologies where possible and to support and accommodate electronic signatures.
18. Improving the quality of care by decreasing medical errors and assuring that all your health care providers have accurate and timely information.

Major Activities & Achievements

- Implemented E-Hospital Software, an Integrated Hospital Information and Management System of National Informatics Centre.
- Research collaboration with C-DIT in the area of Health Information Technology
- Developed and Implemented E-Palliative Software in research collaboration with C-DIT.
- Implemented National Knowledge Network (NKN) connectivity at MCC.
- Advanced Diploma in Health Information Technology Course (MEDIT) in Collaboration with C-DIT, Thiruvananthapuram.
- Providing Computer Hardware, Network and Software Maintenance and support
- Updating and Maintaining a dynamic website for MCC-www.mcc.kerala.gov.in
- Implemented e-Procurement Mission Mode Project of Govt. of Kerala at MCC
- Laboratory equipments interfaced with e-Hospital Software.
- Server and Database Administration, Management and Maintenance
- Managing Telemedicine facilities
- Implemented Online Career Application and Online Examination facilities
- Official E-mail service with SMS facility implemented for all Employees.
- Online Birth & Death Registration in association with IKM.
- Online OPD Registration using ORS Portal of Govt. of India.
- New Computer Training Lab with 30 Systems, Interactive Projector and Network.
- New ID card (Proximity Card) for Employees.
- Two smart class rooms
- Aware & Awake: Online Cancer Awareness Project in association with National Service Scheme, IHRD and funded by V-guard Industries Ltd.
- Providing Academic Project support for MCA, B.Tech, M.Sc. IT, M.Sc. Computer Science, BCA, B.Sc. Computer Science, B.Sc. IT Students.
- Campus wide Wi-Fi connectivity, Public Addressing System and Security Surveillance System.

Technology Infrastructure

The following hardware and network infrastructures are managed by the division

Hardware			
Server Computer	: 12	Work stations	: 34
Desk top Computers	: 185	Laptop	: 11
Network Printer	: 11	Ink jet Printer	: 08
Dot matrix Printer	: 11	Laser Printer	: 47
Scanner	: 12	UTM firewall	: 01
Switch (10/100/100)	: 23	Modems	: 03
LCD Projector	: 11	High Resolution Digital Visualiser	: 02
Over Head Projector	: 01	Wireless Interactive White Board	: 02
Switch (10/100/100)	: 39	Barcode Scanner	: 20
Barcode Printer	: 16	Interactive Projector	: 01
Ultra short through projector	: 04	64 channel NVR	: 02
IP Cameras	: 100	Wi-Fi Access Point	: 35
Bio-metric Punching Machine	: 03		
Network Infrastructure			
1.	National Knowledge Network (NKN) Dedicated internet connection		
2.	3 BSNL Broad band Connection with static IP		
3.	1 BSNL Internet connection (NNECT)		
4.	Kerala State wide Area Network connection (KSWAN)		
5.	Structured Cat6 cabling (LAN)		

Conclusion

The smooth and successful implementation of e-governance may increase the productivity and improve health care quality. We believe that timely and easy access to information is critical to the pursuit of excellence in all clinical, academic, research and administrative matters. To facilitate delivery and retrieval of clinical data to provide safe, timely, efficient, effective, and equitable patient-centered care and the promotion of secure data exchange.

Staff

Name	Designation
Ranjith M K	System Manager
Bhavina C	Junior System Analyst

Clinical Research and Biostatistics Division

The Division of Clinical Research & Biostatistics came into acting position from April 2013 under the Headship of Dr. Saina Sunil Kumar of the Department of Cancer Registry & Epidemiology. Now it is functioning under the headship of Director, MCC. The Division was started with an aim of conducting Clinical Research and advanced level Statistical work to improve the quality of Scientific Research in the Centre.

Statistics:

- Conducted 16 IRB-SRC meeting during this period.
- Conducted 2 Institutional Ethics meeting.
- Conducted External Review Committee meeting for reviewing the research proposals for intramural fund.

Staff

Name	Designation
Dr. Atanu Bhattacharjee	Assistant Professor in Biostatistics
Subhradev Sen	Lecturer in Biostatistics

DEPARTMENT OF COMMUNITY ONCOLOGY



Dr. Neethu A P
Lecturer , HOD i/c

Community oncology Department started functioning as a full-fledged department since 2010 January .The Department has been regularly conducting cancer awareness classes, early detection camps, volunteer training programs, health exhibitions and school tobacco awareness programs in 5 districts of North Kerala (Kozhikode, Kannur, Wayanad, Malappuram ,Kasargode, Palakkad)and Mahe(U T of Pondicherry). A tobacco cessation clinic and an anti-tobacco cell function under the department.



Service:

1. Awareness programs

- a. Cancer awareness campaign: cancer awareness classes for general public and health workers in cooperation with various organizations, residential groups, clubs etc.
- b. Tobacco awareness campaign at schools: anti-tobacco awareness classes using audio visual aids were conducted at different schools.
- c. Exhibitions and observation of cancer related health days: cancer and tobacco related health exhibitions were organized at different public programs and schools. No tobacco day, cancer awareness day etc. were observed with massive public programs.
- d. Trainings and workshops: training in tobacco control and cancer screening for health workers, volunteers, JPHNs, nurses are regularly conducted.
- e. Awareness generating public competitions: painting and literary competitions were organized for school children and general public on tobacco control and cancer prevention.
- f. Quarterly newsletter NETHI on tobacco awareness for school children.
- g. Publication of IEC materials for awareness generation.
- h. Screening of short film for tobacco awareness “U- Turn “in schools and public programs.

2. Screening camps

- a. Early cancer screening camps: oral, breast and cervical cancer screening camps were organized at different districts of the state namely Kannur, Kasargode, Wynad, Calicut, Malappuram, Palakkad and Mahe (U T of Puduchery).
- b. Survey based screening camps
- c. Tribal community programmes: tribal camps at Aralam and Wynad.
- d. Risk group screening camps for HIV patients, sex workers etc.

Tobacco Cessation Division

Tobacco cessation treatment is provided to those addicted to all forms of tobacco use. People identified at the camps were directed to the department OPD. Division also conducts various tobacco awareness programs for public and school children. Research on various aspect of tobacco use is also conducted in the division. Tobacco cessation OPD functions on all Wednesdays.

Anti-tobacco cell

Anti-tobacco cell was formed on 31-10-11. The cell consists of eminent personalities from different walks of life like teachers, Journalists, Social activists, writers, Janamythri police etc. The main aim of cell is to educate the student community on the menace posed by the tobacco use. The Executive Committee of the cell comprises the following members, Dr. Satheeshan Balasubramaniam (Chairman), Dr. Ramachandran V (Joint Convener), Dr. Neethu A.P, Dr. Phinse .M. Philip (Member conveners) and Major P Govindan, Dayanandan Master, Chalakkara Purushu, Pradeep Master (Executive members).The cell is involved in all our anti-tobacco campaigns

Patient Service:

Sl.No	Camps	Nos.
1	Ecdc camps	140
2	Awareness class	36
3	School tobacco program	20
4	Health exhibition	19
5	Volunteer training	11
Cervical Cancer Screening		
1	Pap smear	2074
2	ASCUS	5
3	ASC-H	3
4	LSIL	4
5	HSIL	1
Oral cancer screening		
1	Total screened	8148
2	Oral cancer	15
3	leukoplakia	148
4	Lichen planus	115
5	O S M F	101
6	Erythro plakia	6
7	Tobacco pouch keratosis	111
Breast cancer screening		
	Total screened	4228
1	Breast cancer	11
2	Fibrocystic disease of breast	229
3	Mammogram advised	377

Conference/Seminar/Workshop/Training:

- “MUNNETTAM “ An antidrug awareness program for students : As a part of creating awareness and stopping abuse of tobacco and other drugs at educational institutions, Malabar cancer centre planned an year long program consisting of exhibition of tobacco related cancer affected body specimens, screening of anti tobacco short film “U TURN”, and an anti tobacco discussion panel involving students, teachers, eminent public figures and doctors from community oncology department. The inauguration of the program was on 14 -6-16 at Chovva higher second-

ary school by Kannur Mayor Ms E P Latha. Till date, 21 schools from various districts have been covered under this program.

- Athijeevanam project: conducted volunteer training as part of the project at Neeleswaram and Thrikka-rippur on Nov 21
- Snehasparsham” cancer control program: Deepika news paper in association with Malabar cancer centre organised two day volunteer training program in Naduvil and Chapparappadave Gramapanchayath as part of the “Snehasparsham” cancer control program. Renowned artist and cancer survivor Mr Eby N Joseph inaugurated the program
- NETHI release - Dr Khadeeja Mumthas, renowned novelist released the 10 th issue of NETHI news letter of antitobacco cell of MCC at a function held at Kelakam on 10/4/16
- **Anti tobacco day observation on 30th and 31st of May 2016**

The program was conducted in Malappuram district in collaboration with Indian medical brotherhood and Karuna hospital, Edarikkode. A literary competition was conducted among school, college students and public on the topic-Hazards of tobacco use. There was an extensive medical awareness exhibition organized at Clary Govt UP School. Awareness classes were conducted by Dr Neethu and Dr Phinse. Following the class, the students and public took an anti tobacco pledge. The program was inaugurated by former education minister Sri Abdu Rabb MLA.

- **International day against drug abuse and illicit trafficking , June 26**

As a part of observation of this day, various programs were organized in Wayanad and Kannur districts. On 23 rd June, along with Vivekananda Medical mission Hospital an anti tobacco rally was conducted. The rally was flagged off by President of Muttill panchayath. An exhibition was also conducted at the hospital. On 26th, a cancer and tobacco awareness class was conducted for public at Kannur district along with Nambiar Sabha. Program was inaugurated by Mr Rajesh Nambiar, President, Nambiar sabha.

- Sansad Adarsh Gram Yojana, Kuttiaattoor: An evaluation meeting and presentation of the preliminary survey results was conducted in the collector’s chamber. The same was also presented before Kuttiaattoor gramaPanchayath Members.
- Athijeevanam Project at Neeleswaram Block Panchayath. The project intends to empower the volunteers and elected members for cancer control. The

project includes starting of early cancer detection centre and a community cancer registry at Neeleswaram Block Panchayath. Preliminary meeting was conducted on 1st July at Cheruvathoor. Director explained the project and an active discussion followed. Conducted volunteer training as part of the project at Neeleswaram and Thrikkarippur on Nov 21

- Cancer vimuktha gramam - A cancer control project by Kannapuram Grama Panchayath. The second phase of the project was inaugurated on 31st of October by former MLA P Jayarajan. Volunteer training and survey training was also conducted as part of the program
- **Observation of national cancer day on November 7th.**
- Conducted “Arbudam Nerarivukal” a public program and a panel discussion on cancer Myths and facts at IMA Hall ,Thalassery. The panellists consist of experts from respective fields. The program was inaugurated by Sri Mullappally Ramachandran MP. Socially committed public and students from various parts of Malabar region participated in the event.
- Aware and Awake project: orientation workshop on cancer prevention for NSS volunteers from Thrissur to Kasargod was conducted at Malabar cancer centre on 30th November along with IT department of MCC.
- 1st Anniversary of collaboration between MCC and Muttill Vivekananda medical mission for cancer screening among tribal population was conducted on 25th November.
- Sensitization program for elected representatives for cancer awareness: conducted sensitization program on cancer for elected representatives of Balal panchayath, Kasargod district at MCC seminar hall on 21-12-16. The program was inaugurated by Director, MCC. There was an awareness seminar on cancer followed by

visit to various departments of MCC by the members.

- World cancer day observation February 4th, Malabar cancer centre in association with various organisations and institutions, observed the world cancer day. An oral cancer awareness program and exhibition were conducted at Mahe dental college. An awareness program and discussion session was also held at Makreri Grameena Padashala. Cancer awareness exhibition was held at Malabar cancer centre on the same day.
- Shubhayatra : On March 18, Malabar cancer centre in association with JCI Panoor organised an anti tobacco campaign for Autoriksha drivers. As part of the program, an awareness sticker was given to autodriviers to be pasted inside each Autorikshaw. These stickers are intended to encourage passengers on quitting tobacco habit and also to improve their tobacco related knowledge. Health Minister KK Shailaja teacher inaugurated the function. MCC director Dr Satheesan B delivered the key note address.
- “.Ayurdeeptam”- A district level program for setting up of early cancer detection centres (ECDC) in PHCs in Kannur district. Health Minister inaugurated the project on 18-3-17 at a function held at District panchayath

Research :

- Health literacy project of SANSAD ADARSH GRAM YOJANA in Kuttiattoor panchayath
- Athijeevanam project in Neeleswar block for empowering volunteers and elected representatives for cancer control

Publications:

- Hand book on tobacco
- NETHI news letter –a publication of antitobacco cell of MCC every 3 months

STAFF

Name	Designation
Dr.Neethu A.P	Lecturer HOD –in-Charge
Dr.Phinse .M.Philip	Lecturer
Mr. Santhosh Kumar K	Lab Assistant
Mrs.Nisha	Nursing assistant
Mrs.Sheeba	Ward assistant

DEPARTMENT OF ONCO ANESTHESIOLOGY



Dr. Nived K
Associate Professor & HOD

The Department of oncoanaesthesiology embraces two major operation theatre, one brachytherapy theatre. Each is equipped with anaesthesia workstation, intubation trolley and drug repository. Our major OT works five days a week and on Saturday we have minor OT. The surgeries done here comprise head and neck oncology, surgical oncology, breast and gynaecology.

- New anaesthesia consent introduced
- Token system brought in pre anaesthesia consultation
- New anaesthesia record card initiated

Patient Service:

Sl. No	Procedure	Number
1	GA	865
2	GA+EPIDURAL	242
3	SAB	327
4	CSEB	29
5	SAB CONVERTED TO GA	8
6	EPIDURAL	7
7	REGIONAL BLOCKS	4
8	SHORT GA	23

New Equipments Acquired:

- 12 channel ECG machine
- Philips multipara monitor-VM-12 with IBP



STAFF

Name	Designation
Dr. Nived.K	Associate Professor
Dr. Jashma.C	Assistant Professor
Krishnakumar K	OT Technician
Vipin K	Anaesthesia Technician
Sreejesh K	OT Technician
Baluchanrdan	OT Technician
Sreelatha T N	Staff Nurse
Shyja E	Staff Nurse
Jisha P	Staff Nurse
Jisha K	Staff Nurse
Sajna	Staff Nurse
Smithamol D	Staff Nurse
Sreejith S	Nursing Assistant
Mithun G	Nursing Assistant

DEPARTMENT OF CANCER PALLIATIVE MEDICINE



Dr. Biji MS
Assistant Professor & HOD

Cancer Palliative Medicine has been functioning in this Centre, since November 2002. The Centre is a recognized medical institution for possession and supply of Oral Morphine. The Palliative Care Services also provide counseling to patients and their family members. Cancer palliative medicine aims at improving the quality of life of cancer patients especially those for whom curative options have been exhausted.

Cancer Palliative Medicine Division has an inpatient, outpatient and home care facility.

Education:

- June 2016 IAPC course in “Essentials of Palliative care” started with 11 candidates (10 staff nurses & 1 doctor). This is the 7th batch in MCC. Contact sessions held on 11.6.16 and 12.6.16.
- Examination for IAPC June 2016 batch was held in the seminar hall. 11 candidates took the exam.
- IAPC course in “Essentials of Palliative care” for doctors and nurses-7 batches completed.
- BCCPAN (Basic Certificate Course in Palliative Auxillary Nursing) for auxillary Nurses-9 batches completed
- BCCPN (Basic Certificate Course in Palliative

Nursing) for Nurses-3 batches completed

Conference/Seminar/Workshop/ Training:

- Mrs. Sindhu N.R. attended the 1st State Conference of Palliative Care Nurses, Kerala organized by Institute of Palliative Medicine, Kozhikode and took a session on “Nutrition in Palliative care patients”.
- Dr. M.S. Biji was invited as external examiner for the National Fellowship Program in Palliative Medicine, (a joint program by Institute of Palliative Medicine and Christian Medical Association of India) held at IPM.
- World Palliative care day was observed. A program “SPANDANAM-MUGHAMUGHAM” was conducted for ostamates of MCC at Dharmadam Beach Tourism Centre. The program was inaugurated by Dr. V. Ramachandran, Mahe MLA. About 80 members including one relative for each patient attended the program. Welcome address by Dr. M.S. Biji, Presidential address by Director, Dr. Satheesan B, felicitations by IAPC state secretary Mr. P. Narayanan and Nursing Superintendent of MCC, Mrs. Annet Fernandez and vote of thanks by Mrs. Sindhu N.R. This was



followed by a session by Mr.Pradeep,psychologist,Hridayaram and later patients could have a discussion on stoma issues with a panel consisting of Dr.Nizam (Surgical Oncologist), stoma Nurse (Sindhu N.R), Nutritionist(Dr.Snany) and Palliative care physician (Dr.M.S.Biji).

- Mrs Sindhu N.R, Stoma Nurse had designed a new wound manager bag and the same was presented as a paper in the National Conference of Oncology Nurses held at MCC.
- Palliative care day was observed on 15th January 2017 .A “workshop on lymphedema care –LENFODEM” was organized for nurses of MCC by the Department of Cancer Palliative Medicine. About 48 in house nurses,3 students of Post Basic Diploma in Oncology nursing and 1 clinical research assistant from biostatistics Dept attended the program.
- After the initial welcoming of the gathering a session on “Lymphedema care –what we should know” was taken by Dr.Nizamudheen, surgical oncologist, MCC. This was followed by a talk on general measures to be taken for the skin care ,by Dr.M.S.Biji followed by the demonstration of massage, bandaging and exercises by staff nurses, Sindhu N.R,Sreeja Kumari, Sajitha.P and Ahina S.S after dividing the participants into 4 groups.The program ended with the distribution of certificates and a booklet on Lymphedema care prepared by staff Nurse Sindhu N.R.
- Dr.M.S.Biji attended the two day preconference workshop on EPEC(Education in Palliative and End-of-Life Care) for pediatrics at Grand Regency, Coimbatore.
- Attended the 24th International Conference of the Indian Association of Palliative Care ,IAPCON Coimbatore 2017 and presented a poster on “Overall survival analysis of patients with brain metastases treated with palliative WBRT in a Tertiary Cancer Centre of North kerala”.
- Dr.M.S.Biji attended the conference “TECHNOSCAN 2017” conducted by MCC and presented a poster on “Can e palliative care delivery satisfy our patients? Received the “BEST POSTER AWARD” for the same.
- Conference paper: Ms.Sindhu N.R, Ms.Sabitha, Ms.Liby, Ms.Shyni, Ms.Subadra,Ms.Annet Fernandez, Dr.M.S.Biji Effectiveness of a specialist nurse managed stoma clinic in a rural cancer centre-A retrospective analysis.
- Conference paper: Biji M.S , Tapesh Bhattacharyya, Atanu Bhattacharjee, Sindhu N.R, Satheesan Balasubramanian Patient satisfaction of homecare service provided through e-palliative homecare service in a tertiary cancer centre of northern Kerala : A pilot study
- Conference paper: Biji M.S, Sampada Dessai, Atanu Bhattacharjee, Sindhu N.R, Satheesan Balasubramanian. Validation of the Malayalam version of Distress Thermometer.

- Conference paper: Biji M S, Ranjith M K, Abhina S S, Satheesan B. Can e palliative care delivery satisfy our patients?

Abstract published in Indian J Palliative care 2017;23:121-79

Research :

Ongoing Projects:

PI in the study “Patient satisfaction of homecare service provided through e-palliative homecare service in a tertiary cancer centre of northern Kerala”.

PI in the study”Profile of pain score and analgesic usage in children with hematological malignancies treated at a Tertiary Cancer Centre”.

Publications:

- SB Dessai, D Adrash, M Geetha, S Arvind, J Bipin, S Nayanar, K Sachin, MS Biji, S Balasubramanian Pattern of care in operable endometrial cancer treated at a rural-based tertiary care cancer center [pg. 416] Indian Journal of Cancer 2016 | July-September | Volume 53 | Issue 3
- M.S.Biji Believing Jeny about her pain Journal of Pain & Palliative care Pharmacotherapy. Volume 31, 2017, Issue 1, pg 73-75.
- Biji MS, Vinin N.V, Abhina S.S, Bindu T, Geetha M Overall survival analysis of patients with brain metastases treated with palliative WBRT in a Tertiary Cancer Centre of North kerala

Award:

Dr .M.S.Biji got the first prize in poster presentation in TECHNOSCAN 2017 held on 18.3.17 at Malabar Cancer Centre for the poster “Can e palliative care delivery satisfy our patients?”

HOME CARE SERVICES

Homecare facility for the needy patients was started on June 20, 2009. Home care is done thrice in a week catering to the need of patients staying within 35 kms from MCC. There are so far 570 patients registered in homecare facility. Patients are given medication free of cost. Procedures like omecar tapping, wound dressing, catheterization, ryles tube introduction are done. Apart from this psychological support to the patient and their families are also given.

e-palliative medicine :

The omecare service from MCC is Nurse-lead and doctor assisted. In order to make the service more effective consultation of the patient is done through e-palliative medicine wherein the patient and relatives can see and consult the doctor directly making the homecare visit more satisfying to them.

STAFF

Name	Designation
Dr. Biji MS	Assistant Professor & HOD
Mrs.Abina S.S	Staff Nurse
Mrs.Soumya	Ward Assistant

DEPARTMENT OF DENTISTRY AND REHABILITATION

Department of dentistry & rehabilitation provides dental services to all the registered cancer patients. Pre-radiation dental screening is made mandatory for all head and neck cancer patients. Dental restorations, oral prophylaxis, extractions, fixed and removable prosthesis are provided for such patients. All the patients will be regularly followed up for optimum dental health.

Hematological patients and patients with solid tumours having skeletal metastasis are also screened for dental health and necessary dental treatment carried out.

Surgical patients who are in need of obturators are planned in accordance with the head and neck surgery departments.

Maxillofacial prosthesis services are also being provided.

- A full time dental OPD started functioning
- Prosthetic rehabilitation routinely done as a part of cancer care therapy
- Providing maxillofacial prosthesis service
- Dental screening prior to RT and prior to antiresorptive agents were made mandatory.

PATIENT SERVICES

Procedure	Number
Total patients attended in OPD	2801
extractions	1878
oral prophylaxis procedures	127
gic restorations	54
obturator	15
root canal treatments	42
Complete dentures	15
removable partial dentures	28
maxillofacial prosthesis	4
cast RPD	1
FPD	28 UNITS
CROWN	1
FLOURIDE CARRIERS	6



Dr. Pramod Sankar. S
Associate Professor & HOD

● **Conference/Seminar/Workshop/Training:**

- First international digital dental conference , Hyderabad India
- 3D Printing Workshop Coimbatore, India
- TECHNOSCAN At MCC , Thalssery
- International MFP symposium at AIMS KOCHI Presented Poster on “MFP Services at a Tertiary Cancer Centre”

Research :

- Oro-dental screening and effect of drugs on Osteonecrosis of the jaw in patients receiving anti-resorptive medication – A four year retrospective study at a tertiary cancer centre, Kerala, India
- Drug related and dental related factors for developing osteonecrosis of the jaw among cancer patients who receives anti resorptive medication at a tertiary cancer centre in North Kerala, India - A five year prospective study
- Maxilla Facial prosthetic (MFP) services at a Rural Tertiary Care Cancer Centre – an Audit
- Assessment of quality of life (QoL) of patients who underwent maxillectomy and prosthetic rehabilitation at a tertiary cancer centre, using Obturator Functioning Scale (OFS) - A Cohort study.

STAFF

Name	Designation
Dr. Pramod Sankar. S	Associate Professor
Mrs. Mini.P.	Assistant

DEPARTMENT OF ENGINEERING AND MAINTENANCE



Sri. Sudeep K T
Engineer

MCC is having a fully fledged Engineering Department which undertakes all the major and minor construction works of MCC since the beginning and is maintaining whole hospital building machineries/ equipments, furniture hospital electrical installations such as 11KV Electrical substation, (4 pole yard) 1600 KVA Transformer, HT vacuum circuit breakers, Diesel generators etc) Lift Telecommunication system Water supply & sanitary installations, operation and maintenance of Effluent Treatment Plant, maintenance of Radiation equipments MRI ,CT etc . In addition to the above, Engineering dept. handling the AMC of all Hospital equipments and insurance processing of whole Hospital equipments, buildings, roads and other structures under different categories and taking necessary steps to settle claims whenever a damage/replacement occurs. For each and every needs of the hospital Engineering provides all timely supports as and when required. we communicate with consultants in our construction works and gave necessary instructions regarding works and liaison works with BSNL,KSEB, Electrical Inspectorate Municipality Self governing bodies etc. We prepare the drawings and estimates of the various projects of MCC and take steps to implement work as per government rules

The following achievements/ activities are carried out/ execute in MCC during this tenure in addition above mentioned routine works.

- Modification and beautification of Reception of Hospital for providing more space to meet the increased patient flow and convenience to patients Our bankers M/s IDBI has sponsored the work for Rs. 5 lakhs
- Expansion of OT Complex and shifting of Office area The construction of Office extension area has been completed and office shifted to new area in the first floor
- Flooring works of power laundry-In connection with NABH accreditation process Power laundry floor has been tiled
- Aluminium partition work in Power laundry - In connection with NABH accreditation process Power laundry area has separated as wet area and dry area, and also exit and entry are separated by Aluminum particle boards
- KIIFB Projects : Engineering department of Malabar Cancer Centre helped to prepared DPR for 1st phase development and submitted before KIIFB for ` 183 crores. The following projects are included in the 1st phase.

- Construction of Radiotherapy block with 3rd LINAC (extension)
- Construction of Inpatient Block (vertical extension)
- Construction of Operation Theatre Complex (2nd floor)
- Construction of Nursing College (2nd phase-second & third floor)
- Out Patient Block renovation
- Furnishing of above blocks

Equipment and Facilities

- Government of Kerala, Health & Family welfare Department had issued order for engaging BSNL as SPV for execution of projects for the development of Malabar Cancer Centre as Post-graduate Institute of Oncology Sciences and Research
- Granite top table work of Clinical lab: For the proper arrangement of machines and hygienist, a Granite top table is arranged in Clinical Lab
- Cancer Genetic Laboratory : The Inauguration of Cancer Genetic Laboratory was conducted on 27-08-2017 by Honb'le Chief Minister of Kerala presided by Honb'le Minister for Health & Soci-

etal Justice. The above laboratory was arranged by utilizing MP LAD of KK Ragesh (Rajyasbha MP), for ` 130 lakhs. Engineering gave all supports to install the machineries for the above

- Compressed Medical Air plant;- MCC has started a compressed air plant which is very useful for functioning ventilators in ICU, HDU ,washing of surgical instruments,working of Pneumatic drill etc
- Childrens”s park We had constructed a Kids park in the MCC compound for recreation of staff and conducting open air programs
- Construction of CSSD- Construction of centralized sterile supply department is completed and ready for opening with modern equipments
- Installation works of a 1010 KVA Diesel Generator set and its connected panel and cabling works are going on quickly to meet the increased power requirement of MCC
- Nursing College construction is almost completed and ready for opening
- Pediatric construction restarted
- Laboratory block construction is well going on
- Nuclear Medicine block construction also going on well



Conference/Seminar/Workshop/ Training:

- MCC has send two engineering staff to attend the workshop conducted by EMC at Trivandrum on energy Efficiency Financing on 22nd August 2017
- MCC has send Electricians to attend the one day work shop on first aid and Safety on industry training conducted by Electrical Inspectorate Calicut
- MCC has send Engineering staff to attend the DG maintenance and operation of Cumins Engines at Calicut conducted by M/s Sunitha Sales & Services
- Engineering staff visited RCC in connection with the new construction of Nuclear medicine block ,Lab block and new OP
- Enercon 2017- Engineering & Maintenance De-

partment of MCC conducted a one day training program on Electrical safety and conservation methods ENERCON 2017 on 8th April 2017 at MCC The program was to provide fundamental and essential knowledge and understanding of efficient utilization of electrical energy and safety tips for staff and students of MCC as well as for public, students from other institutions. Classes were conducted on importance of safety/protection equipments ,earthing system Solar energy LED lights etc

Grants & Schemes :

Submitted financial assistance of 1 lakh for setting up Yoga Park in Malabar Cancer Centre Thalassery for the patients, bystanders & staff from Centre Council for Research in Yoga & Naturopathy(Ministry of AYUSH, Govt. of India)

STAFF

Name	Designation
Sri. Sudeep K T	Engineer
Smt. Reena P C	Supervisor, Electrical
Sri. K. Chandran	Supervisor, Plumbing
Sri. T V Satheesh	Supervisor, Electrical
Smt. Shijina.E	Supervisor Civil
Smt. Lijikrishnan	Biomedical Technician
Sri. Sushanth	Electrician
Sri. Nyju	Electrician
Sri.Anilkumar.S	Electrician
Sri. Rasheed.P	Plumber
Sri. Jinsithlal.O.N	Plumber
Smt.Rasna Haridas	Data Entry Operator
Sri. Abilash.N	Oxygen plant operator
Sri.Swarag.T	Oxygen plant operator
Sri.Mukesh.K.V	Oxygen plant operator
Smt.Aswani Vimal	Biomedical Apprentice Trainee

DEPARTMENT OF GENERAL ADMINISTRATION



Sri. Rajesh A K
Administrative Officer

Recruitment of employees, training, functioning, setting the salaries and benefits of employees and managing employee-employer relations, are some of the primary duties of the Administration. The responsibility of the Administration includes, organizing and supporting the major activities of the Institute and integrating various functions and services. It is a multifaceted Department, comprising of many Divisions and types of personnel, and services. It requires adequate facilities trained employees, efficient systems and controls, and other supporting staff. The policy making body of the Institute is the Governing Body (GB) and the day to day activities are controlled by the Executive Committee (EC). In order to meet the objectives of the Institute, the Administration coordinates the activities of the Centre and creates policies so that all areas of the Institute staff functions efficiently. The Administration recruits, hires hospital staff such as Doctors, Academicians, Engineers, Nurses and other para-medical and scientific/technical staff, for the entire staff requirements of the Institute. The employees are periodically evaluated and proper guidance and training are provided to them to bring out the maximum output. The Director and other Senior Officers lead these administrative services and is directly responsible for the day-to-day operation.

Administration Department is entrusted with the task

of evaluating the staff on a periodical basis and judging the level of their performance and also developing policies and procedures that facilitate the efficiency of daily operations. It reviews, implements and analyzes the overall budget of the Institute and the budgets of different areas of the Institute to make sure they are realistic and stringently followed. At times, it acts as a moderator for staff complaints and tries to resolve the grievances arising out of patient care services. In addition to a great deal of paper works and daily administrative tasks, the administration also thinks about the future of the Institute and provide additional in-puts on short-term and long-term plans, for its growth and development. It also ensures that Institute objectives are met through the process of selection, development, organization, motivation, management, evaluation and the promotion of human resources. The Administration complies with Government regulations set out for the Institute and its staff. The Department consists of staff looking after the day-to-day affairs of the Centre in accordance with the existing rules and regulations of the Centre and in accordance with Government orders/instructions, issued from time to time. The Administrative Department is running the activities with minimum staff strength, i.e less than 5% of total staff strength of the entire Institution. The Department controls the overall activities of the Centre and consists of the following major Divisions:

1. General Administration Division
2. Hospital Administration
3. Academic Division & Library and Information Science
4. Public Relations and Clinical Services Division
5. Accounts Division
6. Purchase/ Stores Division & Pharmacy
7. Human Resources and Establishment Division
8. Security Division

1. General Administration Division

This Division handles the overall activities of the Centre which includes maintenance of dispatch and inward registers, Government correspondences, issue of orders, circulars, maintenance of files related to various contracts, convening of various meetings, tapal section etc:- This Division frames policies, guidelines and procedures and make sure that they are adhered to by the staff. This Division also handles activities related to the Hospital and also liaison work with Government and other Departments.

STAFF

Name	Designation
Smt.Preeethudas	PA to Director
Shri. Rejoy.K	Clerk/Cashier/Typist
Shri. Jayadeep.E.K	Clerk/Cashier/Typist
Shri. Jayanandan.A	Clerk/Cashier/Typist
Shri. Sreejith P.K	Clerk/Cashier/Typist
Shri. Dinesh Kumar. T.M	Clerk/Cashier/Typist
Smt.Bindu.T.K	Clerk/Cashier/Typist
Shri. Ganeshan.V	Clerk/Cashier/Typist
Smt.Surekha.M.C	Clerk/Cashier/Typist
Shri. Prasoonan.P.P	Clerk/Cashier/Typist
Shri. Anoop. V	Clerk/Cashier/Typist
Smt.Mini..P	Clerk/Cashier/Typist
Smt.Sandhya.K.P	Hospital Assistant
Shri. Shajith.R.P	Attender



3. Hospital Administration

This Division will handle the clinical activities of the Centre. However this Division is presently handled by the Administrative Officer itself, as the Institution is yet to fill up the post of Hospital Administrator. The recruitment procedures are in progress for filling up this post.

4. Academic Division & Library and Information Science

Medical Library is the centre of clinical information centre for the hospital, is keeping pace with



Shri.SUBASH
CHANDRAN

and staff and students from other hospitals or academic institutions from all over the country.

Malabar Cancer Centre, one of the pioneer institutes in cancer research, demands each and every recent updates about cancer treatment from all over the world. MCC's vision is "To become a centre of excellence in cancer treatment and research and occupy a place amongst the most eminent cancer institutions of the nation".

Objectives:

- To provide seamless access to information
- To act as gateway to digital and electronic information
- To develop in to single access point library
- To collect,organize & collate print &digital information&dissimination at the point of care and for future use
- Entering books purchased in the stock register
- Classification of books and their cataloguing.
- Registering of current periodicals.
- Processing verification of books,bill tallying etc.
- Reference service for both ready reference and long range reference

Facilities

Departmental Library system started functioning from 2012 and at present we have more than 8 Departmental Libraries, as follows:

- Surgical Oncology
- Clinical Hematology &Medical Oncology
- Cancer registry & Epidemiology
- Clinical Lab Services and Transfusion Medicine
- Imageology
- Oncology Nursing
- Anesthesiology
- Community Oncology

Departments maintain two register, i.e a stock register and issue register. The present Medical Library will act as focal point, which is also the Central Library to the institution.

Activities :

Up-to-date: Up-to-date subscription started from 2013 onwards .Up-To-Date is an evidence based clinical decision support system by Wolters Kluwer, USA. Up-to-date is continuously updated and is one of the most widely used medical information resources globally. Now mobile application of Uptodate access is also included for next year

Services

Reference Services: Our reference section has special collection in the field of oncology with special emphasis on diagnosis, treatment and prevention along with research and education. Multivolume books and books for examination purpose are treated as reference collection. Besides that, one copy of each duel kept in reference. Reference section started in 2013.

24x7 Services: Our library users are busy with their clinical practices during day time and so they cannot utilize their daytime for their research activities. To get 24 x 7 access for users Medical Library by implementing RFID with CCTV camera in the library. RFID (Radio Frequency Identification) is the wireless non contact use of radiofrequency electromagnetic fields to transfer data, for the purpose of automatically identifying and tracking tag attached to objects. The tag contains electronically stored information. RFID can be used to library circulations operations, shelving, theft detection, and inventorying. Since RFID tags can be read through an item, there is no need to open book or DVD case to scan an item, and stack of books can be read simultaneously. Book tag can be read while books are in motion, which reduces staff time. This can all be done by the borrowers themselves, reducing the need for library staff assistance.

Statistics:

Books	2823
Journals	
Printed	34
On line	111
Clinical database	01
Database	
-Clinical Key	
-Wiley Online	
-Ovid	
-UpToDate	
E-Journals: Subscribed 111 online Journals through various platforms	

Activities and achievements:

- Prepared purchase order for 353 Medical books.
- Received 241 books from various vendors.
- Accessioned 241 books after verification.
- Classified and catalogued the purchased books.
- Renewed the subscription of 34 printed journals.

- Renewed the subscription of 111 online journals.
- Renewed the subscription of UpToDate.
- Provided training for users to how to use the e-journals.
- Installed UpToDate mobile app and access provided to Clinicians.

Hospital Library

A Hospital Library for the patients, their bystanders and staff, was established in 2004. There are 44 periodicals, 5 newspapers and 9395 books in the Library. The Library is funded by Kerala State Library Council and we have 1145 users till date.

Activities

- Subscribed 44 periodicals utilizing funds from KSLC and Thalassery Municipality.
- Selected books from various book stores in Kan-nur.
- Purchased 280 books to the Library.
- Issued Periodicals and Books to the patients and patient bystanders.
- Prepared and send monthly report of the library activities to the KSLC.



STAFF

Name	Designation
Shri. Subash Chandran.A.K	Medical Librarian
Shri. Harish Babu	Assistant Librarian

5. Public Relations & Clinical Services Division

The Clinical Administration and Public Relations Division is the control center of the hospital, providing 24-hours attention towards the handling and serving of all patients' requirements and needs. The Hospital Assistants are responsible for facilitating the smooth and accurate flow of information regarding hospital-wide services, location of patients, location of hospital departments, location of meetings, etc., ensuring excellent customer service to patients and visitors. The Hospital Assistant is a resource for the volunteers who are working at the Reception Counter.



Shri. C.S. Padmakumar
(Public Relations Officer)

The reception-cum-information counter which serves the reception, information and communication needs of patients and visitors should be convenient to people as they enter the lobby. Reception is one such area in a hospital that has a direct access for all who come to the hospital. All those who enter the hospital have to pass through the reception. It being the face of the hospital serves as a big assistance to all those who require it. Therefore, it is essential that a reception be situated somewhere in the front of the hospital so that patient has direct assistance. Secondly, it is also important that those who manage from this seat should have a lot of patience, a big smile on their faces and also be very courteous in their language towards the customers. They do require keeping up-to-date information about everything of the entire hospital. So that the customers go back to their homes broad smile on their faces rather than dissatisfied. Major activities areas follows:

Co ordination of academic programs

- All social activities and public relations activities.
 - Receiving and guiding patients and other visitors
 - New Patients Registration according to their Socio Economic Background
 - Case file arrangement and Issue of Identity cards
 - Issue of all investigatory reports
 - All cash transactions of patients
 - Patients and relatives guidance and counseling
 - Implementation of various patient welfare services
 - o Chis Plus
 - o Karunya Benevolent Fund
 - o Sukrutham
 - o Cancer Suraksha Scheme
 - o Thalolam
 - o Comprehensive Health Care Scheme for Scheduled Tribe
 - o Snehasanthwanam for Endosulfan victims
 - o RBSK
 - o Society for Medical Assistance to the Poor
 - o ESI Scheme
 - o Pondichery Medical Relief Society
 - o Prime Minister's Relief Fund
 - o Chief Ministers Relief Fund
 - o Patient Welfare fund of MCC
 - Issue of various certificates to patients
 - Issue of railway concession forms
 - Guidance and issue of certificates for financial aid from both government and private agencies
 - Death register maintenance and periodical reporting to concerned authority
 - All types of correspondence related to patients
 - Treatment expenditure Re imbursement procedures for various agencies
 - Guidance and assistance to various trainees coming here for training
 - Issue press releases to print and audio visual medias
 - Management of patients and their relatives complaints and suggestions
 - Apprenticeship training for Front Office Assistants and Computer Operators
- Co ordination of training programs for various specialities
 - Organising and Supervising Filed Work Training and Project Work Dissertations to Various Professional Courses
 - Co-ordination of various Research Projects
 - Liaison work with various Governmental and other agencies



- Maintain up to date registers, regarding, the names and contact numbers of all employees of the Centre
- Maintain up to date registers, regarding, the names and contact numbers of other major hospitals, Govt. offices etc.
- Maintain up to date registers showing the details of all calls (official and personal) made through the exchange.
- Connect incoming external phone calls to the concerned staff

Clinical Achievements -2016-17

Descriptions	Total
New Cases	4480
Non Cancerous Cases	1820
Follow up cases	55524
Non Cancerous ases(FU)	1833
Total patients	63657
In patients	4017
Day CT Injections	12534
IP CT Injections	2571
Total CT Injections	15105
Observation cases	616
Major Surgeries	1201
Minor Surgeries	453
Total surgeries	1654
Scopies	2366
X-ray	4973
U S G	1565
Mammogram	1830
CT Scan	3735
Esophageal stenting	2
Biopsy	3008
FNAC	982
Cytology	2260
Histopathology	4907
Haematology	24708
Biochemistry	26101
Urine analysis	1106
BMA	526
Peripheral smear	448
ECG	708
Bronchoscopy	86
IP RT	14892
OP RT	2942
RT patients in fractions (cobalt)	8606

Descriptions	Total
Number of New Patients(RT Cobalt)	492
Brachytherapy	335
Brachytherapy (pt. bases)	114
RT Simulator	185
Volunter Training Programme (ECDC)	33
Cancer Awarness Classess	41
Early Cancer Detection Camps	138
Exhibition	37
Blood Donation	1224
Component Preparation	7530
Screening Test	3890
Blood Donation Camp	39
ABG	421
No.of Fluid	581
CNE	2
Linac RT(Total No.of New case)	442
Linac(RT patients in fractions)	20955
Tumour Marker	2409
Second Opinion(sob,soc)	2400
Culture and sensitivity	5568
Sputum -AFB	194
Environmental sample	269
MRI	1440
Gram stain	199
Fungal culture	84
SEROLOGY	4831
4DCT CT SIMULA	2068
BMT	22
RT Elekta(New case)	791
RT Elekta(Total patients)	10065
RT Elekta(Total No. of fractions)	29178
Virology Lab(CMV PCR Test)	45

DETAILS OF TRAINING FOR VARIOUS SPECIALITIES STUDENTS – 2016 – 2017

Specialty	No. of students
Medical Doctors	34
M.Sc Nursing	13
B.Sc Nursing	384
M.Sc. Physics	15
M.Sc. Statistics	1
M.Sc. MLT	20
B.Sc. MLT	84
Bachelor in Audiology and Speech Language Pathology	19
B.Sc. MRT/DRT	9
B.Tech	8
MSW	6
OTT	1
ASAP DOT	12

DETAILS OF FINANCIAL ASSISTANCE SCHEMES IMPLEMENTED IN MCC - 2016-17

Schemes	2016 – 17	Amount
CHIS PLUS	3510	88625275
Karunya Benevolent Fund	3707	187080860
Sukrutham	1459	54691737
Comprehensive Health Care Project	160	5833771
ESI	149	11786918
PMNRF	79	4749833
Cancer Suraksha Scheme	74	6587377
PMRS	36	1672205
Thalolam	27	740722
SNEHASANDWANAM	17	2496960
Patient Welfare Fund	8	69697
ASWAS	7	292352

KERALA STATE RIGHT TO SERVICE ACT – 2012

Kerala State Right to Service Act – 2012 has implemented in MCC from 2014 May onwards. During the year 2016 – 17, 20, 829 applications have been received for various services and the same has been resolved within time limit. The details of service available are shown below:

Sl.no	Name of Service	Designated Officer	Time limit	First appellate authority	Second appellate authority
1	Right to obtain Medical Certificates/ Treatment Certificates for various purposes	Treating Doctor	3 days	Administrative Officer(Clinical Services)	Director
2	Right to obtain Certificates for financial assistance from various sources	Treating Doctor	3 days	Administrative Officer(Clinical Services)	Director
3	Right to obtain Certificates for re imbursement claims for investigations/ treatment	Treating Doctor	7 days	Administrative Officer(Clinical Services)	Director
4	Right to obtain Train concession forms for cancer patients	Hospital Assis- tant	1 day	Administrative Officer(Clinical Services)	Director

Sl.no	Name of Service	No. of applications received
1	Right to obtain Medical Certificates/Treatment Certificates for various purposes	5367
2	Right to obtain Certificates for financial assistance from various sources	4751
3	Right to obtain Certificates for re imbursement claims for investigations/treatment	201
4	Right to obtain Train concession forms for cancer patients	10510
	Total	20829

MALAYALAM – OFFICIAL LANGUAGE

- More than 94% of the files in MCC are in Malayalam language
- Formulated Bharana Bhasha Ekopana Samidhi
- Formulated Paribhasha Cell

Sl.no	Total No. of files	No. of files in Malayalam	No. of files in English	% of files in Malayalam
2016 - 2017	5055	4738	319	94%

STAFF

Name	Designation
Smt. Mahija P.M	Hospital Assistant
Smt. Shyni D. R	Hospital Assistant
Smt. Bindu V	Hospital Assistant
Smt. Reena K	Hospital Assistant
Smt. Anupama Achuthan	Hospital Assistant
Smt. Sreeja K	Hospital Assistant
Smt. Bhavana Moukthi M.B	Hospital Assistant
Smt. Deepa Chenoli (Relieved on 02/02/2017)	Hospital Assistant
Smt. Remya V	Hospital Assistant
Smt. Soorya M.C	Hospital Assistant
Smt. Bindu T.N	Hospital Assistant
Smt. Honey Mol	Hospital Assistant
Smt. Aswani V	Hospital Assistant
Shri. Rajeevan U	Telephone Operator
Shri. Rathish	Attender

5. ACCOUNTS DIVISION

This Division plays a key role in up-keeping the financial matters of the Centre. This Division is headed by Finance/Accounts Officer. At present Shri.Sajeendran.V (Retd Additional Secretary from Government) is holding the post on temporary basis. Recruitment procedures are in progress for appointing permanent hands. The Finance/Accounts Division manages financial activities including all payments and receivables related to the Institution.



Sajeendran V.

The Finance Division advises the Director on financial policy and long-range planning, establishes procedures for accounting functions, receives and deposits all cash received by the Hospital, and approves the payments of salaries and other expenditures.

The important activities carried by this Division are as follows:

- All works pertaining to preparation of annual budget, salary disbursal, maintaining PF accounts of staff members all payments & receipts,

maintenance of all books, ledgers and registers, all banking transactions, auditing etc are handled by this Division.

- Billing for services rendered by the hospital wing and for receiving money on behalf of the Centre.
- Making payments for supplies and services received and disbursement of pay and allowances of the staff of the Centre.
- Preparation and maintenance of the accounts the Centre
- Preparation of the budget documents (Plan & Non-Plan) schemes and assisting the Director in exercising proper budget control.
- Paying for supplies and equipments.
- Handling all records pertaining to hospital finance.
- Keeping all records of assets and liabilities.

Grant-in aid

Grant in aid received during the year 2016-17 are as follows:

- PLAN - Rs. 12,75,00,000/- released out of total 29 crores
- NON-PLAN - 9,77,85,000/-

6. PURCHASE/ STORES DIVISION & PHARMACY

Purchase Division

Purchase

All purchase matters including medicine purchase are handled by this Division. All purchases of the Centre are routed through this Division, including local purchases. Purchase procedures are carried out, following Store Purchase Rules. At present this Division is handled by the Administrative Officer himself as recruitment procedures are in progress for appointing permanent hands. The important functions of this

Division are as follows:

- To ensure competent quality execution of all regular purchasing duties and administrative works.
- To prepare reports and summarize data including sales report and book value.
- To support relevant departments with quotations for the purpose of tenders.
- To monitor and co-ordinate deliveries of items between suppliers to ensure that all items are delivered to site/store on time.
- To plan and manage inventory levels of materials or products.

Major equipments purchased during the period are as follows:

Sl.No	Item	Amount	Name of the Supplier
1	Multipara Monitor ((Model: EFFICIA CM 10 with IBP, Philips) – 4 Nos. Multipara Monitor ((Model: EFFICIA CM 12 with IBP, Philips) – 1 No.	Rs.8,00,000/- @ Rs.1,60,000/-, inclusive of all taxes.	M/s. Kerala Surgical Equipment Co. 41/2028. M.E.S. Centre, Near Town Hall, Banerji Road, Kochi – 682 018
2	Applicator & Accessories for HDR Brachytherapy Unit	USD 81,983.00 + customs duty	Elekta Ltd, Linac House, Fleming Way, Crawley, West Sussex RH10 9RR, United Kingdom
3	Equipments for Radiation Physics Division 1) All in one immobilization board - 02 2) Beam Alignment, Collimator Check And Focal Spot Test Tool - 01 No 3) Daily Check Water Phantom - 01 No 4) Pocket Dosimeter - 02 Nos 5) Wing Board & Breast Board - 01 Each 6) Combifix – 1 No	Rs.32,16,490/-	M/s. Meditronix Corporation 12B/4598, Ground Floor, Gola Cottage, Darya Ganj, New Delhi – 110 002
4	High End Ultrasound machine (Model: Toshiba Aplio 500 Platinum V6 with accessories)	JPY: 1,79,51,634/- . Local items: INR 20,57,403	M/s. ERBIS ENGINEERING CO., LTD 1-14, TORANOMON, 4-CHOME, 6F, KAMIYACHO PLAZA BUILDING, MINATO KU, TOKYO, JAPAN
5	OT LED Lights	Rs.19,42,000/-	M/s. Innovative Concepts, 35/1476A, Kripa, Kochaneth Lane, South Janatha Road, Palarivattom, Kochi – 682 025

6	Electro Surgical Diathermy Unit	Rs.4,95,000/-	M/s. Innovative Concepts, 35/1476A, Kripa, Kochaneth Lane, South Janatha Road, Palarivattom, Kochi – 682 025
7	Surgical Navigation System (Model: NAV3)	Rs.64,30,425 /-	M/s. Innovative concepts, 35/1476, kripa, kochaneth lane, South janatha road, palari- vat- tom, Kochi – 682 025
8	Anaesthesia Workstation with monitor	USD 42,000/- + customs duty	M/s. Wipro GE Healthcare Pvt. Ltd., 5th Floor, Aryabhangi Pin- nacle, Elamkulam, S.A Road, Kochi – 682 020
9	Grossing Station (Model: Bio- clean air BCAD-GWS-600)	Rs.5,10,000 /-	M/s. Universal Agencies Palak- kal Angadi Trichur -680 001
10	High End Linear Accelera- tor and complete accessories (Model: VERSA HD with ac- cessories)	USD.21,00,000/- + customs duty	M/s. Elekta Limited, Linac House, Fleming Way, West Sus- sex Rh10 9rr, United Kingdom.
11	Mobile File Storage System (Model No: JMSS M2 A SPL)	Rs. 4,01,000/-	M/s. Jalaram Steel Furniture Pvt. Ltd, 1, Mangalwadi, Jalaram Estate, Kapodra, Varachha Road, Surat – 395 006 Guj (India)
12	Inverted Fluorescent Micro- scope with 100HBO and all other mentioned accessories in the tender (Model: Axio Vert.A1 Fl.Carl Zeiss Micros- copy GmbH, Germany)	EURO 16,836.00	M/s. Labmate (Asia) Pvt. Ltd, Baid Mehta Complex, C- Block,1st Floor, No. 183, Mount Road,Saidapet, Chennai – 600 015, India
13	Cell Culture Hood with re- quired accessories (Model: HF Safe 1200LC)	Rs.4,30,000/-	M/s. BioLinx India 106, In- drejeet Apartment, Behind Mar- athi School, Majiwada, Thane (West) – 400 601
14	Elisa Reader With Washer (Model: Multiskan FC & Alere Washer)	Rs.4,85,000/-	M/s Kochin Inlab Equipments India Pvt. Ltd, Door # 28/2391- D, Vihaan, Chilavannur, Kada- vanthra-PO, Kochi – 682020 Ph: 0484 2316938, 2316595

Medicine purchase

The entire medicines, consumables, surgical disposables, X-ray films, common drugs, antibiotics, re-agents etc:-, required for the Centre, is purchased through this Division. E-tender procedures are followed for the purchase of medicines on yearly basis. Purchase procedures are initiated by giving wide publicity through newspapers and website of MCC. A pre bid meeting is conducted with potential Sup-

Medicine purchase

The entire medicines, consumables, surgical disposables, X-ray films, common drugs, antibiotics, re-agents etc:-, required for the Centre, is purchased through this Division. E-tender procedures are followed for the purchase of medicines on yearly basis. Purchase procedures are initiated by giving wide publicity through newspapers and website of MCC. A pre bid meeting is conducted with potential Suppliers and tenders are floated. Selected firms are to execute a Supply agreement with MCC and payment shall be released based on the supply and proper checking of bills. Non-quoted medicines/emergency medicines are purchased from Neethi stores/ Local market, subject to availability. Total purchase amount of medicines during the year 2015-16 is Rs. 16,66,06,578/- (Sixteen crores sixty six lakhs six thousand five hundred and seventy eight only).

Pharmacy Division

MCC Pharmacy, due to the peculiar location of the Centre, has much significance in providing medicines for the patients in MCC. As the Centre is situated far away from Thalassery town it is necessary that all required medicines needs to have adequate stock. Non-availability of medicines in the Pharmacy will force poor patients to travel long way to Thalassery for availing the medicines. Moreover there is also possibility that cancer drugs might not be available in medical stores in Thalassery area.



Sajeevan P.

pliers and tenders are floated. Selected firms are to execute a Supply agreement with MCC and payment shall be released based on the supply and proper checking of bills. Non-quoted medicines/emergency medicines are purchased from Neethi stores/ Local market, subject to availability. Total purchase amount of medicines during the year 2016-17 is Rs. 20,01,20,359/- (Twenty crores one lakh twenty thousand three hundred and fifty nine only).

The main activities of Pharmacy are as follows:

- To ensure that sufficient quantity of medicines and other items are stored/stocked in the Store for ready issue.
- To assist the Clinicians in obtaining latest information regarding any drug in terms of its trade name, manufacturers name, source details of package etc;_
- To check the drugs and other items on receipt in the Pharmacy, from stores/suppliers/main store regarding their nomenclature, date of manufacture, date of expiry, shelf life and any sign of deterioration, damage or defects if any.
- To issue drugs and other items from Pharmacy to OPD/Wards/ICU's/OT and other Departments after receiving proper indents.
- To maintain the details of drugs and other items issued in register.
- To ensure that medicinal products are stored appropriately and securely to ensure freshness and potency
- To keep up to date with recent developments in the pharmaceutical industry.
- Started new chemo counter to issue drugs to day chemo patients and emergency drugs also issue through this counter
- Narcotic drugs are stored in MCC store for surgery and terminally ill patient for as strong pain killer, at free of cost to patents

At present there are two Pharmacies operating in MCC, one the main Pharmacy and the other (IP Pharmacy) in the 2nd floor, exclusively for IP patients. The main Pharmacy is having the facility of Cold storage system (Walk in cooler) for maintaining the potency of Drugs. Separate Narcotic Drugs counter is also provided in main Pharmacy. All medicines and consumables re-

lated to cancer treatment, i.e, anti-cancer drugs, surgical & disposables, antibiotics, reagents, X-ray films etc;- are purchased through this Division. The Pharmacy Division consists of Pharmacy Main Store, Main Pharmacy, IP Pharmacy and Storage area. The Main Pharmacy functions 24 x 7 hrs and the IP Pharmacy functions during day time. On requirement and proper indent from the Pharmacist, drugs are purchased through the Purchase Division and supplied to the Pharmacy main Store. The main store keeps records of the stock and issue medicines to various sections like main Pharmacy, IP pharmacy, Wards, Operation theatre etc:-. Considering the large number of patients, medicines are issued through token system, which reduces the rush in front of Pharmacy. This Division is headed

by the Pharmacist, and supported by Assistant Pharmacists, Pharmacy Assistants and Ward Assistants.

Details of purchase and sales during the year 2016-17 is as below:

- Total purchase amount - Rs.200120359/-
- Total sale amount - Rs.187946395/-

Activities and achievements:-

- Due to the increase in the number patients visiting our centre, the work load also had increased simultaneously. For smooth operation of Pharmacy one Store Keeper and one Pharmacist was appointed.
- Token display system provided during the period.



STAFF

Name	Designation
Sajeevan.P	Pharmacist
Rachana. M	Pharmacist
Viju V S	Store Keeper
Suganth	Assistant Pharmacist
Nisha Gangan T V	Assistant Pharmacist
Sajitha P	Assistant Pharmacist
Sajila V K	Assistant Pharmacist
Sabitha M V	Pharmacy Assistant
Bindu K T	Pharmacy Assistant
Darley Joseph	Pharmacy Assistant
Sasna N.K	Cashier

- Cold Storage System (Walk in cooler) installed in the main store to maintain the potency of drugs.
- Provided sun light proof store room,
- Extended Pharmacy services 24 X 7.
- Separate Narcotic Drugs counter provided in main pharmacy.
- Separate chemo counter started in main pharmacy.
- Swiping machine was installed in cash counter for cashless transfer.

Education:

- Conducted Continuing Pharmacy Education program on 26/06/2016

Store Division

This Division is headed by Store Keeper and deals with stock handling, maintenance of Central Stock Register, condemnation, disbursement of required items to various Departments/Divisions, printing & stationary, local purchase etc:- Stock verification is carried out in all Departments/Divisions and Pharmacy of the Centre annually.



Lasitha KV
Store Keeper

inventory control, preservation of stores, receipt of stores, movement of stores, including packing and forwarding, issue of stores, accounting of stores. This Division ensures that bills with documents in respect of accepted items are cleared immediately to the Accounts section, with a copy to the purchase section and will watch purchase orders periodically for dates of delivery, especially when such items are critical in stock and inform purchase section.

The Store Keeper is under direct control of Purchase Officer/Administrative Officer. This Division works in tandem with the Purchase Division and mainly looks after the physical custody of stores, proper

STAFF

Name	Designation
Lasitha K V	Store Keeper

8. HUMAN RESOURCES AND ESTABLISHMENT DIVISION

Staff requirements for each section of the Hospital, including Senior Administrative Staff, Academic Staff Non-academic staff, Paramedical staff, Technical staff, Junior Administrative staff, Last grade staff etc:- are being timely met by the efforts of this Division. Approved recruitment guidelines are implemented for all recruitment procedures for the appointment of academic and non-academic staff. As per Service Rules of MCC the recruitment authority for Academic staff/ Senior Administrative Staff is the Staff Selection Committee. The present Staff Selection comprises of the following members:

1	Secretary to Government, Health Department or his nominee	Chairman
2	Secretary to Government, Planning & Economic Affairs Department or his nominee	Member
3	Secretary to Government, Finance Department or his nominee	Member
4	Members of Scientific Committee	Members
5	External subject expert(s)	Member
6	Director, Malabar Cancer Centre Society, Thalassery	Convener

The recruitment authority for Paramedical, Nursing, Auxiliary, Technical staff, Junior administration staff Last grade etc: is the Director or Recruitment Committee constituted for the purpose. The present Recruitment Committee comprises of the follows:

Director-MCC
External Subject Expert (s)
HOD of concerned Department
HOD- Clinical Laboratory Services and Translational Research/ Senior HOD of any Clinical Department (Clinical Hematology/Radiation Oncology/Surgical Oncology)
Administrative Officer.

Staff who had joined Instituion during 01.04.2016 to 31.03.2017

Sl. no.	Name	Designation	Joining Date
1	Dr. Anju Radhakrishna Kurup	Leturer	04/03/2016
2	Dr. Shoaib Nawaz P.N.	Assistant Professor	31.03.2016
3	Dr. R. Parthiban	Associate Professor	18.04.2016
4	Mini K.P.	Clerk/Cashier/Typist	13.06.2016
5	Anoop VS	Clerk/Cashier/Typist	23.06.2016
6	Dr. Basavaraj Ankalkoti	Assistant Professor	11.07.2016
7	Dr. Jashma	Assistant Professor	01.11.2016
8	Anisha K	Lab Technician	05.12.2016
9	Sinsha NP	Lab Technician	03.01.2016
10	Dr. Sindhu ER	Lecturer	27.02.2016
11	Dr. Arun P. Narendran	Assistant Professor	13.03.2016
12	Josna AJ	Dosimetrist/ Physics As- sistant	15.03.2016

Staff who had left the Institution during the period 01.04.2016 to 31.03.2017

Sl.no	Name	Designation	Joining Date	Relieved date
1	Najeeb K.A.	Radiographer	16.09.2010	16.02.2016
2	Sherin Paul	Radiographer	12.10.2012	17.02.2016
3	Dr. Ashish Bens	Assistant Professor	04.07.2015	08.06.2016
4	Dr. Atanu Bhattachargee	Assistant Professor	26.09.2013	02.07.2016
5	Resmi.K.R	Staff Nurse - Gr. II	6/10/2006 10.06.2006	07.11.2016 11.07.2016
6	Subhra Dev Sen	Lecturer	04.03.2013	30.07.2016
7	Subina.P	Staff Nurse - Gr. II	04.12.2010	03.08.2016
8	Jyolsana Raghavan	Lab Technician	19.02.2016	30.11.2016
9	Siju VA	Lab Technician	09.02.2016	17.12.2016
10	Jyothsna Jayaraj	Senior Lecturer	15.06.2016	19.01.2017
11	Deepa Chenoli	Hospital Assistant	18.07.2011	02.02.2017
12	Dr. Kiran P.	Assistant Professor	25.03.2015	28.02.2017
13	Dr. Sanudev Sadanandan V.P.	Assistant Professor	25.02.2015	25.03.2017
14	Dr. Santhosh Kumar N	Assistant Professor	17.05.2016	31.03.2017

8. SECURITY DIVISION

The security wing of MCC plays a pivotal role in maintaining the overall security of MCC and is headed by Security Officer. He will be under the direct supervision of Director/Administrative Officer. Security guards are ex-servicemen and are outsourced through KEXCON (Kerala State Ex-Servicemen Development and Rehabilitation Corporation). They guard the Campus and Centre 24x7 and are posted in various areas of this Centre, for the smooth functioning. Vigilant security measures need to be undertaken as lot of highly sophisticated and costly state of art equipments and some equipments are installed

under Atomic Energy Regulatory Board (AERB) regulations. AERB insists tight security for these equipments and this Centre comes under the direct supervision of District Superintendent of Police. Security measures are even tightened up by installing surveillance cameras as and where required. This Division also acts as In charge of Drivers and the Hospital vehicles.



Sri. Satheesan PM
Security Officer

STAFF

Name	Designation
Satheesan PM	Security Officer



DEPARTMENT OF ONCOLOGY NURSING



Smt. Annet Fernandez
Nursing Superintendent

Education

- 14th CNE Ignited Insight -2017 on specialist – Nurses in chemotherapy conducted on 12th March 2017
- Nurses Day was celebrated on 12th May 2016
- 13th CNE Astha -2016 on childhood cancers conducted on 12th June 2016
- Best Ward, Best Department, Best Nurse, Best Nursing Assistant was nominated
- BLS, ACLS Training done for 18 Staff Nurses by American Heart Association for 3 days from 26th August 2016 to 28th August 2016 and 3rd March 2017 to 5th March 2017
- Practical classes on “PICC Insertion by clinical demonstrated” from Bard on 27th October 2016
- Two Of our Staff Nurses were sent to Post Basic Oncology Nursing Program for a year since 28th October 2016
- A class on CVAD by BARD conducted on 12-08-2016.
- National conference on “Recent Innovations in Nursing Care & our Contribution” conducted on 12th November 2016. Faculties from major hospitals were present. An interaction with faculty from California through Skype also present
- World Cancer Day celebrated on 4th February 2017 The Theme was “ We can I can”
- NABH training classes was conducted on for all staff on 13th March 2017 to 15th March 2017
- CVAD Clinic had started and two more staff nurses were sent to TMH Mumbai for training
- In service education regarding Pain management, Lymph edema, Infection control, Radiotherapy etc was done

Major Achievements

- National conference on Recent Innovation in nursing care conducted on 12-11-2016. Faculties

from major hospitals were present. An interaction with faculty from California through skype also present

- BLS, ACLS Training done for 18 Staff Nurses by American Heart Association for 3 days from 26th August 2016 to 28th August 2016 and 3rd March 2017 to 5th March 2017
- CVAD Clinichas been started and two more staff nurses were sent to TMH Mumbai for training

Research

- Pain free hospital project, Patients feedback assessment, Infection Tracking Register for infection control.
- Conference/Seminar/Workshop:
- BLS/ACLS training ,Practical class on PICC insertion, Classes conducted on CVAD by BARD.
- Two staff nurses were send for Post Basic Oncology Training.
- Two more staff nurses were sent to TMH Mumbai for training
- Any Other Matter Need To be Highlighted:
 1. Periodic In service education to staff nurses about pain management, infection control, stoma care etc.
 2. Live telecast from faculty from California was highlighted the national conference.

STAFF

Name	Designation
Annet Fernandez	Nursing Superintendent
M V Subadra	Senior Nurse
Shyni A F	Head Nurse
Liby George	Head Nurse
Sreelatha N	Junior Nurse
Sabitha	Junior Nurse
Sindhu N R	Junior Nurse
Maya PK	Junior Nurse
Sheeja N	Junior Nurse
Bijitha P	Junior Nurse
Smitha Grace	Junior Nurse
Sindhu S	Junior Nurse
Shaia E	Junior Nurse
Navamy T C	Junior Nurse
Seena E	Junior Nurse
Jisha k	Junior Nurse
Kavitha C N	Junior Nurse
Saritha N	Junior Nurse
Ligy Jose	Junior Nurse
Sajina N	Junior Nurse
Smithamol D	Junior Nurse
Sujatha K	Junior Nurse
Sheena C	Junior Nurse
Prajina E	Junior Nurse
Sreeja Kumari	Junior Nurse
Saritha K R	Junior Nurse
Remya M	Junior Nurse
Sunitha Kumari	Junior Nurse
Asha mol M A	Junior Nurse
Anuthara R	Junior Nurse
Jemy Mathew	Junior Nurse
Shiji Paulose	Junior Nurse
Sumi P R	Junior Nurse
Bindu Raman	Junior Nurse
Shibi Mol	Junior Nurse
Shabina P	Junior Nurse
Blassy P	Junior Nurse
Athira K	Junior Nurse
Sherjin	Junior Nurse
Jaleema M L	Junior Nurse

Name	Designation
Shijila V	Junior Nurse
Sajitha P	Junior Nurse
Sibi K Daniel	Junior Nurse
Jisha P	Junior Nurse
Asha John	Junior Nurse
Sreejisha P	Junior Nurse
Nirmala N	Junior Nurse
Shiji P	Junior Nurse
Suma Devi	Junior Nurse
Shimna S	Junior Nurse
Silja Kurian	Junior Nurse
Sachithra	Junior Nurse
Abhina	Junior Nurse
Lethiamma P R	Nursing Assistant
Jerry A	Nursing Assistant
Kalamol G	Nursing Assistant
Deepa Prabha	Nursing Assistant
Baiju B	Nursing Assistant
Shobidha L	Nursing Assistant
Biju Prasad	Nursing Assistant
Shibu S	Nursing Assistant
Mary I C	Nursing Assistant
Mercy John	Nursing Assistant
Ajimol Dominic	Nursing Assistant
Sreejith S	Nursing Assistant
Dhanya P M	Nursing Assistant
Dhaya E	Nursing Assistant
Shibila K	Nursing Assistant
Rekha M	Nursing Assistant
Midhun G	Nursing Assistant
Neethu BS	Nursing Assistant
Shamla N	Nursing Assistant
Bindu KM	Nursing Assistant
Nisha T	Nursing Assistant
Ragi Sindhya	Nursing Assistant
Rehana T	Nursing Assistant
Zeenath	Nursing Assistant
Shanthini	Nursing Assistant
Prajina E K	Nursing Assistant
Jinshi RS	Nursing Assistant

RESEARCH

INSTITUTIONAL REVIEW BOARD (IRB)

Research in Malabar Cancer Centre is conducted while maintaining the highest ethical and scientific standards. Malabar Cancer Centre engages in cutting edge clinical research in major oncological disciplines and emphasizes Interdisciplinary research. The institute has memoranda of understanding with several governmental organizations so that their expertise can be used in clinical research. In order to ensure that research is conducted under the most stringent conditions the Institute has an Institutional Review Board (IRB)

The Institutional Review Board is responsible for overseeing the scientific and ethical issues associated with any research conducted in the Institute. The IRB is made of two separate bodies : The Scientific Review Committee (SRC) and the Institutional Ethics Committee (IEC). Both these bodies are constituted as per the guidelines provided by the ICMR for conducting biomedical research.

Scientific Review Committee (SRC):

The SRC meets twice in every month (2nd and 4th Saturday) and/or as and when required. SRC is tasked with reviewing the scientific merit of any new research proposal. All research proposals have to be submitted by the first week of every month so that it can be reviewed by the SRC. The SRC reviews the proposed scientific study and gives recommendations the scientific merit and methodology adopted in the study. Once studies have been approved by the SRC they are submitted to the IEC for ethical approval, if any.

Scientific Review Committee Members:

Sl. No	Name	Position	Affiliation
1	Dr. Satheesan B	Chairperson	Professor & Director
2	Dr. Sangeetha K Nayanar	Vice Chairperson	Professor & HOD,
3	Dr. Chandran K Nair	Member	Associate Professor , Department of Hematology
4	Dr. Sajith Babu T P	Member	Associate Professor, Department of Surgical Oncology
5	Dr. Geetha M	Member	Associate Professor, Department of Radiation Oncology
6	Dr. Sampada Desai	Member	Associate Professor, Department of Surgical Oncology
7	Dr. Nived	Member	Associate Professor , Department of Anaesthesiology
8	Dr. Pramod Shankar	Member	Associate Professor , Department of Rehabilitation and Dentistry
9	Dr. Satheesh Babu	Member	Associate Professor , Department of Imageology
10	Dr. Parthipan Rudrapathy	Member	Associate Professor , Department of Microbiology
11	Dr. Senthilnathan	Member	Additional Professor

Research Proposals Approved by Scientific Review Committee:

Sl. no	Prinicpal Investigator	Project title
1	Dr. Varadharajaperumal, Dr.Sangeetha. K. Nayanar	Correlation between MLH-1, MSH-2, PMS-2,MSH-6 expression and MSI in relation to clinic pathological features in Colorectal Cancer-Initial experience in tertiary care centre in North Kerala
2	Dr. Sampada Desai	Pattern of Care and outcome of elderly breast cancer patients at tertiary care centre
3	Dr. Satheesan B Dr. Sampada Desai	Pilot study to detect the time to angiogenic switch post primary cytoreduction and intercal cytoreduction in stage III Ovarian cancer
4	Dr. Harsha KN, Dr. Sajithbabu, Dr. Bhushan Kathuria	Infrahyoid Myocutaneous flap in reconstruction of oral cavity in Head & Neck Oncology
5	Dr. Sangeetha.K.Nayanar Dr. Sithara Aravind, Dr. Sreejyothi HK	Extranodal Lymphomas in the Head & Neck region- A retrospective single centre study over three years
6	Dr. K Joseph Philip, Dr. Sreedevi B	Cytomorphological Spectrum of Cervical Lymhnode Fine Needle Aspirate in a Tertiary Cancer
7	Dr. Aswathi Krishnan, Dr. Deepak Roshan	Histopathological and Molecular Characterization of Endometrial Carcinoma in Kerala
8	Dr. Satheesh Babu.T.V, Dr. Sithara Aravind	Diagnostic accuracy of ultrasonography guided FNAC in neck lesions- A retrospective study
9	Dr. Neethu A P	Yield of Breast Cancer cases from a disstrict wide screening programming in Kannur District- the ASWAS experience of North Kerala
10	Dr. Saina Sunilkumar	Socio-demographics, clinical profile and oncological outcome of male breast cancer patients in a tertiary care centre- A descriptive study
11	Dr. Satheesh BabuT V	Sensitivity and Specificity of stand alone 2D, stand-alone 3D and integrated 2D/3D mammogram for detection of clinically non -palpable BIRADS 4 and 5 lesions among women referred for screening at MCC: A comparative study
12	Dr. Sivadas, Dr. Deepak Dr. Sangeetha K Nayanar	Generation of personalized therapy oriented gene mutation screening panel for the colorectal cancer patients at MCC
13	Dr. Sangeetha K Nayanar	Prognostic efficiency of Clinico-Pathologic scoring in predicting cervical lymph node metastasis in oran squamous cell carcinoma
14	Dr. Phinse Philip	Effectiveness of Population based screening in early detecion of the precancerous and cancerous oral lesions in rural, Kannur
15	Dr. Pramod Sankar S	Oro-dental screening and effect of drugs on Osteonecrosis of the jaw in patients receiving anti resorptive medication-A four year retrospective study at a tertiary cancer centre in Kerala
16	Silpa Ajayakumar	Accuracy of out of field photon dose calculations by a treatment planning system
17	Dr. Geetha M	Toxicity grade III and above among laryngopharyngeal cancer patients treated with concurrent chemo radiation with different schedule at tertiary cancer care centre in Northern Kerala
18	Dr. Sithara Aravind Dr. Deepak Roshan	Clinicopathologic and Genetic Profilinf of Bilateral Breast Cancer Patients

19	Dr. Nived	Factors Associated with the occurrence of metabolic acidosis among cancer patients who undergo major Laparotomy at a tertiary cancer centre in Northern Kerala
20	Mr. Sajeesh VM, Dr. Mohanodos.M, Dr. Sangeetha K Nayanar	Red cell contamination in Leukapheresis product- A comparison between intermittent and continuous flow apheresis devices
21	Mr. Anoop Joy Dr. Mohandos M Dr. Sangeetha K Nayanar	Fibrinogen Recovery in two methods of Cryoprecipitate preparation
22	Dr. Pramod Sankar S	Drug related and dental related risk factors for developing osteonecrosis of the jaw among cancer patients who receives anti resorptive medication at a tertiary cancer centre in North Kerala, India- A five year prospective study
23	Reshmi K Bharathan	Dosimetric dependence of collimator angle on volumetric modulated arc therapy of head and neck cancers
24	Shilpa Ajayakumar	Detector accuracy comparison for point dose measurements in small fields
25	Dr. Geetha M	Evaluation of set up variation in pelvic cancers treated with radiotherapy
26	Suja CA	Comparison of Photoneutron TRACKS in flattened and unflattened beams in medical linear accelerator
27	Dr. Vineetha Raghavan	How effective is low dose IV 1 g in children with ITP
28	Dr. Anju Kurup	Retrospective audit of Diffuse large B Cell lymphoma cases over the last five year period
29	Dr. M S Biji	Overall Survival analysis of patients with brain metastases treated with palliative WBRT in a Tertiary Cancer Centre of North Kerala: An Audit
30	Ain Mary V.J Dr. Satheesan B	Effect of Caregivers Adjustment on the perceived social support and Relilience among cancer patients
31	Dr. Sachin Kadam Dr. Satheesan B	An Assessment of Morbidity and Mortality after Surgery for Rectal Cancer
32	Dr. Sachin Kadam Dr. Satheesan B	An Analysis of Surgical outcome and Morbidity after sacral Resection Surgery for Primary Locally Advanced and Recurrent Rectal Cancer
33	Dr. Rigved N Dr. Satheesan B	Retrospective study of clinicopathological features of breast cancer patients in young women
34	Bindu T Dr. Saina Sunil Kumar	Parametric Regression models in the analysis of Breast cancer survival data
35	Dr. Snany Surendran Mrs. Reena.C	Prospective study of percutaneous endoscopy gastrostomy versus nasogastric tube feeding in pharyngeal cancer patients undergoing chemo radiation
36	Dr. Noori Khalid Dr. Satheesan B	The incidence and risk factors for development of lower limb lymphedema after treatment for gynaecological cancers at tertiary oncology centre- a prospective study
37	Dr. Sajith Babu T P Dr. Santhosh Kumar	Modified radical neck dissection versus selective neck dissection in management for N+ neck in patients with Oral squamous cell carcinoma: A Multicentre Prospective Randomized Controlled Trial

38	Dr. Satheesan B Liby George Shyni AF	Implementation of Pain Free Hospital Initiative at MCC
39	Dr. Joneetha John Sabitha K Navamy T C	An audit on effectiveness of DMSO application and glycerine Mag-sulf in treating extravasation with vesicant drugs done at a rural based tertiary cancer centre in Kerala
40	Dr. Satheesan B Bijitha P Maya P K	Major events diagnosed by ICU nurses in post operative patients
41	Dr. Satheesan B Sindhu S Smitha Grace	Efficacy of new combination of mouth wash in marrow/blood stem cell transplant patients
42	Dr. Noushad Aryadan Dr. Sangeetha K Nayanar Dr. Adarsh. D Dr. Joneetha Jones	Extensive intraductal component (EIC) positive carcinoma of Breast - Four year experience from a cancer center
43	Dr. Satheesh Babu T V	CT guided lung biopsy-diagnostic accuracy and complication rate
44	Dr. Sithara Aravind Dr. Sangeetha K Nayanar	Papillary Neoplasms of Breast experience at a Tertiary Cancer Centre in South India
45	Dr. Satheesan B Dr. Nizam Pareekutty Dr. Remya	Dynamic analysis of serum CA 125 levels during neoadjuvant chemotherapy in patients with advanced epithelial ovarian/primary peritoneal cancer (IIIC-IV) – A Retrospective study
46	Dr. Satheesan B Dr. Geetha M Dr. Nizam Pareekutty	Community Based Breast cancer screening and early detection using Thermal Sensor Based Monitoring System
47	Dr. Sajith Babu Dr. Amith Tyagi	To study two dimensional rate of growth in oral squamous cell carcinoma Lesions during waiting period for surgery at MCC
48	Dr. Adarsh Dharmarajan Dr. Noori Khalid	Retrospective study on node positivity following neoadjuvant chemotherapy in epithelial ovarian cancer
49	Dr. Nizam Pareekutty Dr. Satheesan B	Prospective study on the incidence of short and long term morbidity in patients with breast cancer undergoing axillary sampling and its comparison with axillary dissection with or without radiotherapy
50	Smt. Anjali K Dr. Arun A B	Studies on the Prevalence of Opportunistic microorganisms in Oral Cancer Patients: A Microbiome Approach
51	Dr. Vinin	Erlotinib in Advanced Non-small cell Lung cancer : Efficacy and safety Findings
52	Dr. Joneetha Jones	Tolerance and Toxicity of Palitaxel and carboplatin in definite chemoradiation in Carcinoma Esophagus
53	Suja CA Vrinda Raj	Analysis of surface dose from high energy photon beams for different clinical set up parameters
54	Shilpa Ajayakumar Ashitha K	Skin Toxicity in Radiotherapy - A Dosimetric study
55	Resmi K Bharathan Rasna K	The effects of Cout-outs on Output, mean energy and PDD of low and High Energy Electrons
56	Resmi K Bharathan Deepthi V	Validation of Mayneord Factor
57	Dr. Geetha M	Post Mastectomy Radiation Therapy in High Risk, node negative women with early breast cancer

58	Soumya N M	Output Factor Measurement of a LINAC
59	Soumay N M	Comparison of MLC Leakage in Varian and Elekta Machines
60	Resmi K Bharathan	Determination of Virtual Source Distances for Electron Beam
61	Shilpa Ajayakumar	Dosimetric Effects of two treatment tables used in Mega Voltage Radiotherapy
62	Dr. Satheesan B Dr. Sachin	Factors considered by women with early breast cancer in deciding between modified radical mastectomy and breast conserving surgery at tertiary rural cancer centre in Kerala: A Prospective Analysis
63	Suja C A	Comparison of surface dose in unflattened & flattened beams
64	Dr. Sajith Babu	Defect Based Algorithm for Local Flaps in oral cancer patients treated at a Tertiary Care Cancer Centre in Kerala
65	Dr. Satheesh Babu T V	MRI for assessing Cartilage erosion in Ca Glottis - Radiological Pathological Correlation
66	Dr. Satheesan B Dr. Preethi O	Percentage of patients requiring permanent stoma in advanced ovarian cancer who undergoes curative surgery with bowel and bladder resection
67	Dr. Kandathil Joseph Philip Dr. Manjusha P	Anaplastic Carcinoma of Thyroid- A Clinico Pathologic audit of five years
68	Dr. Pramod Sankar	Assessment of Quality of life of patients who underwent maxillectomy and prosthetic rehabilitation at a Tertiary Cancer Centre, using Obturator Functioning Scale (OFS) - A Cohort Study
69	Dr. Sajith K Satheesh Dr. Sangeetha K Nayanar	Gastrointestinal Stromal Tumors – A Clinicopathologic and Risk stratification study with Review of Literature
70	Dr. Dipin J Dr. Satheesan B	Giant Cell Tumor of Bone: Retrospective Analysis from a Tertiary Rural Cancer Centre
71	Dr. Sajith Tharavoor Dr. Viswanath M N	Speech and Swallowing outcomes in Oral Cancer Patients undergoing segmental mandibulectomy and reconstruction with free fibula flap in comparison to soft tissue flaps at Malabar Cancer Centre.
72	Dr. Satheesan B Dr. Saina Sunilkumar	Empowering the initiation of the new concept of Community Based Cancer Registry Model at the local self-government level by a Tertiary Cancer centre kerala
73	Dr. Vinin N Dr. Joneetha Jones	Clinical Suspicion and DPD/DYPD mutation positivity in patients receiving chemotherapy with capecitabine and 5 Flurouracil
74	Dr. Sajith Babu T P Dr. Snany	A Retrospective study evaluating the use of subjective global assessment as a preoperative nutrition status assessing tool among Head and Neck cancer patients
75	Dr. Satheesan B Arun Dominic Savio	Breast cancer detection device by measuring cell membrane potential- A Theoretical Approach
76	Dr. Pramod Sankar Fasna T T K	Assessment of Hospital Information system implemented in MCC's Reception
77	Dr. Pramod Sankar Rasla P P	Study on work safety of employees in MCC Laboratory
78	Dr. Pramod Sankar Riswana	A study on the appropriateness of medical record forms used in MCC
79	Dr. Pramod Sankar Irshadali M	An Economic Analysis of patients undergone treatment in Leukemia under the department of Pediatric Oncology

80	Dr. Pramod Sankar Zainul Abid O A	A study on National Accreditation Board for Hospitals (NABH) programme to establish and operates with special focus on Facility Management and Safety(FMS) in MCC
81	Dr. Pramod Sankar Rasha K	Job satisfaction of nursing staff in MCC
82	Dr. Pramod Sankar Ridha P	Study on Efficiency of cleaning staff in MCC
83	Dr. Chandran K Nair Dr. Aboobacker Moham- med Rafi	Retrospective audit of Low grade lymphoma cases over the last five year period
84	Dr. Neethu A P Dr. Phinse Philip	Munnettam – An innovative approach in school tobacco awareness
85	Dr. Pramod Sankar	Maxillofacial Prosthetic (MFP) services at a Rural Tertiary Care Cancer Centre- An Audit
86	Dr. Basavaraj	A 5 year Retrospective study of Neuro endocrine carcinoma of colorectum in a tertiary rural cancer centre
87	Dr. Vineetha Raghavan Dr. Satheesan B	Clinical Profile and survival analysis of children with osteogenic sarcoma undergoing Limb Salvage Surgery
88	Dr. Deepak Roshan V G Aneesah PS	Analysis of expression pattern of PKM ISOFORMS and MUC1 in CML patients
89	Dr. Deepak Roshan V G Senobia Basheer C C O	Identification of PI3 KCA and BRAF Mutation in Oral Carcinoma
90	Dr. Satheesan B Mohammed Sha	Construction and Validation of Cancer screening attitude scale
91	Dr. Kandathil Joseph Philip Dr. Sangeetha K Nayanar	Utility of immuno cytochemistry as an adjunct tool to FNAC in routine cytological practices
92	Dr. Remya Dr. Sampada Desai	Treatment outcome of cervical cancer patients treated at a tertiary cancer centre
93	Dr. Deepak	Evaluation of anti-cancer activity of the novel lipopetde ‘KAN-NURIN’
94	Dr. Deepak	Identification of differentially expressed proteins in oral carcinoma
95	Dr. Sajith Babu	Pattern of Recurrence in Glottic ancer patients treated with Laser Cordectomy at Malabar Cancer Centre during the period Jan 2012 to Jan 2017
96	Dr. Sangeetha K Nayanar Dr. Manjusha	The Bethesda system for reporting thyroid cytopathology and its histopathologic correlation – A Retrospective Audit

INSTITUTIONAL ETHICS COMMITTEE

Constituted as per ICMR Guidelines in August 2013. The IEC meets once in every three months and/or as and when required.

REVISED COMPOSITION OF INSTITUTIONAL ETHICS COMMITTEE MEMBERS

Sl. No.	Name & Qualifications	Designation with Address	Position in the Institutional Ethics Committee
1	Dr. T. N. Babu Ravindran,	Senior Medical Consultant Indira Gandhi Co-Operative Hospital Manjodi, Thalassery, Dist.: Kannur, Kerala, India	Chairperson
2	Dr. Satheesan Balasubramanian	Director, Malabar Cancer Centre, Thalassery, Kerala, India.	Member Secretary
3	Dr. Purushotham Basappa	Professor, Department of Pathology, Kannur Medical College & Hospital, Anjarakandy P.O., Kannur, Kerala, India.	Member (Basic Medical Scientist)
4	Dr. Balakrishnan Valliyot	Professor of Medicine Head, Centre for Medical Research & Non-communicable diseases, Academy of Medical Sciences, Pariyaram, Kannur-Kerala, India.	Member (Scientist)
5	Dr. D.Vijay Kumar	Principal, College of Pharmacy, Anjarakandy Integrated Campus Anjarakandy PO, Kannur Kerala, India.	Member (Pharmacology)
6	Dr. Vineetha Menon	Professor & Head, Department of Anthropology, Kannur University, Thalassery Campus, P.O. Palayad, Kerala, India.	Member (Social Scientist)
7	Mrs. Kavitha Balakrishnan	Assistant Professor, Head of the Department, Department of Law School or Legal Studies, Kannur University, Thalassery Campus, P.O. Palayad, Kerala, India	Member (Legal Expert)
8	Fr Thomas Thengumpally	Judicial Vicar, Arch Bishop House, Thalassery, PB No. 70 Kerala, India.	Member (Theologist)
9	Adv. John Joseph	Advocate, near District Court, Thalassery "Thalackal" House Nangarath Peedika, Temple Gate P.O., Thalassery, Kannur, Kerala, India.	Member (Legal Expert)
10	Mr. G.V. Rakesh	Correspondent Mathrubhumi Daily G.V. House, Ponniam P.O., Thalassery, Kannur, Kerala, India	Member (Lay Person)
11	Dr. K. R. Vasudevan	Consultant Physician "ARCHANA", Kovilakam Road, Nilambur (P.O.), Malappuram, Kerala, India.	Member (Clinician)
12	Chinnammu Sivadas	Managing Trustee, Salil Sivadas Foundation, "Salil Bhavan", P.O. Sivapuram, Dist. Kannur, Kerala, India.	Member (Social Scientist)

Research Proposals Approved by Institutional Ethics Committee:

Sl. No	Principal Investigator	Project title
1	Dr. Varadharajaperumal, Dr. Sangeetha K Nayanar	Correlation between MLH-1,MSH-2, PMS-2,MSH-6 expression and MSI in relation to clinic-pathological features in Colorectal Cancer-Initial experience in tertiary care centre in North Kerala.
2	Dr Aswathi Krishnan M Dr Deepak Roshan	Histopathological & Molecular characterization of Endometrial carcinoma in Kerala.
3	Dr. Neethu A. P.	Yield of Breast cancer cases from a district wide screening programming in Kannur District-the "ASWAS" experience
4	Dr. Phinse M Philip	Effectiveness of population based screening in early detection of pre-cancerous and cancerous oral lesions in rural Kannur.
5	Dr. Sivadas V P, Dr. Deepak Roshan Dr. Sangeetha K Nayanar	As assessment of the prognostic significance of common gene mutations in Colorectal cancer patients in Malabar Cancer Centre, Thalassery
6	Dr Sithara Aravind, Dr Deepak Roshan	Clinicopathologic and genetic profiling of bilateral breast cancer patients.
7	Dr. Pramod Sankar S	Drug related and dental related factors for developing osteonecrosis of the jaw among cancer patients who receives anti resorptive medication at a tertiary cancer centre in North Kerala, India - A five year prospective study.
8	Dr. SajithBabu T P Dr. Snany Surendran	Prospective study of percutaneous endoscopy gastrostomy versus nasogastric tube feeding in pharyngeal cancer patients undergoing chemo radiation
9	Dr. Satheesan B Dr. Noori Khalid	The incidence and risk factors for development of lower limb lymphedema after treatment for gynecological cancers at a tertiary oncology centre – a prospective study
10	Dr. SajithBabu T P	Modified radical neck dissection versus selective neck dissection in management for N+ neck in patients with Oral squamous cell carcinoma: A Multicentre Prospective Randomized Controlled Trial
11	Dr. Satheesan B Dr. Nizamudheen	Community Based Breast cancer screening and early detection using Thermal Sensor Based Monitoring System
12	Dr. Nizamudheen Dr. Preeti O Yadav	Prospective study on the incidence of short and long term morbidity in patients with breast cancer undergoing axillary sampling and its comparison with axillary dissection with or without radiotherapy
13	Dr. Geetha M Dr. Joneetha Jones	Post Mastectomy Radiation Therapy in High Risk, node negative women with early breast cancer
14	Dr. Parthipan Rudrapathy	Studies on the Prevalence of Opportunistic microorganisms in Oral Cancer Patients: A Microbiome approach
15	Dr. Sajith Babu T P	Two dimensional growth rate of oral squamous cell carcinoma lesions during a waiting period for surgery at Malabar Cancer Centre
16	Dr. Satheesan B	Factors considered by women with early breast cancer in deciding between modified radical mastectomy and breast conserving surgery at tertiary rural cancer centre in Kerala: A prospective analysis

17	Dr. Pramod Sankar S	Assessment of Quality of life (QOL) of patients who underwent maxillectomy and prosthetic rehabilitation at a tertiary cancer centre, using Orbituror Functioning Scale(OFS)- A Cohort Study
18	Dr. Satheesan B	Empowering the initiation of the new concept of Community Involved Cancer Registry model at the local self-government level by a tertiary cancer centre in Kerala
19	Dr. Dipin J	Giant cell tumor of bone: Retrospective analysis from a Tertiary Rural Cancer Centre
20	Dr. Sajith Babu	Speech and swallowing outcomes in oral cancer patients undergoing segmental mandibulectomy and reconstruction with free fibula flap in comparison to soft tissue flaps during a period of one year at Malabar Cancer Centre
21	Dr. Pramod Sankar	Assessment of Hospital Information System implements in MCC's Reception
22	Dr. Pramod Sankar	Study on work safety of employees in MCC Laboratory
23	Dr. Pramod Sankar	Study on Efficiency of Cleaning staff in MCC
24	Dr. Pramod Sankar	Job Satisfaction of Nursing staff in MCC

EXTERNAL REVIEW COMMITTEE

For reviewing research applications for intramural fund MCC constitute an external review committee with the following members and conducted the first meeting on 21/02/2017.

External Review committee Members:

Sl. No	Name	Position in the committee
1	Dr. Balakrishnan Valliyot Professor of Medicine Head, Centre for Medical Research & Non-communicable diseases, Academy of Medical Sciences, Pariyaram, Kannur	Chairman
2	Dr. Anu Augustine Department of Biotechnology and Microbiology School of Life Sciences Kannur University	Member
3	Dr. Candran C Professor & Head Department of Statistics Calicut Univeristy	Member

SCIENTIFIC ADVISORY COMMITTEE

Scientific Advisory Committee will periodically review the training, services and research activities of the Malabar Cancer Centre and evaluate and make recommendations to the Executive Committee (EC) and Governing Body of the Malabar Cancer Centre.

Scientific Advisory Committee Members:

Sl. No	Name	Designation with Address	Position in the Scientific Advisory Committee
1.	Dr. T G Sagar	Director, Cancer Centre (Adayar) Chennai	Chairperson
2.	Dr.R.M.Nehru	Officer-in-Charge, Scientific Officer "G" Southern Regional Regulatory Centre, Atomic Energy Regulatory Board Anupuram, Tamil Nadu, India	Vice-Chairperson
3	Dr. Manoj V Murhekar	Scientist "F" National Institute of Epidemiology (ICMR) 2nd Main Road, Tamil Nadu Housing Board, Chennai	Member
4	Dr. K Jayakumar	Associate Professor & HOD, Department of Statistics, University of Calicut, Malapuram Dist, Kerala	Member
5	Dr. K B Linge Gowda	Director, Kidwai Memorial Institute of Oncology, Dr. M. H. Marigowda Road, Bangalore	Member
6	Dr. C. Sadasivan	Professor & HOD, Department of Biotechnology & Microbiology, Kannur University, Thalassery Campus, Kannur, Kerala	Member
7	Dr. Ajith Kumar	Dean (Research) Kerala University of Health Sciences Thrissur	Member
8	Dr. Shripad D. Banavali	Professor & HOD, Department of Medical & Pediatric Oncology, Tata Memorial Hospital, Parel, Mumbai	Member
9	Dr. Satheesan Balasubramanian	Director, Malabar Cancer Centre, Thalassery, Kannur, Kerala	Convenor/Member

RESEARCH PUBLICATIONS

Sl. No	Scientific Papers
1	Kavitha KP, Sujith Kumar M, Geetha M, Subhradev Sen, Sangeetha K Nayanar and Satheesan B. Pathological Patterns and Complete Response Rates after Neoadjuvant Chemotherapy and Chemoradiation in Locally Advanced Breast Cancer-an audit of 104 Patients, Journal of Medical Science and Clinical Research 02/2016; 4(2):9216-9221.
2	Subhradev Sen, Sudhansu S Maiti and N. Chandra, The xgamma distribution: Survival properties and application, Journal of Modern Applied Statistical Methods, 2016; 15(1): 774-788.
3	VG Deepak Roshan, MS Sinto, Shaji Thomas and S Kannan. Cyclin D1 overexpression associated with activation of STAT3 signaling in oral carcinoma patients from South Indian. Journal of Cancer Research and Therapeutics, 2016
4	Bindu T, Saina Sunilkumar, Ratheesan K and Satheesan Balasubramanian. Factors associated with survival and lost to follow up of cervical cancer patients in a Tertiary Cancer Centre in Rural Kerala
5	Sangeetha K Nayanar, Shiva Kumar T, Aswathy M K and Sithara A. Eccrine Porocarcinoma- a challenging case series, Scholars Journal of Applied Medical Sciences, 2016; 4(3E):1003-1007.
6	Vidhyadhar, Sithara A, Sangeetha K, Sampada D and Satheesan B. Endometrial stromal sarcoma-a clinico-pathological study, Journal of evolution of Medical & Dental Sciences, April 2016 (Accepted).
7	Sithara Aravind, Sangeetha K N2., Sreejyothi H K3., Vineetha R4 and Chandran K N5 Primary Extranodal Lymphomas in the Head and Neck Region- A Retrospective Study from a Tertiary Cancer Centre in South India, International Journal of Recent Scientific Research Vol.8, Issue,3, pp.16245-16248, March, 2017
8	Sithara Aravind, Varadharajaperumal Radhakrishnan, Sangeetha K.N, Satheesan Balasubramanyan, Satheeshbabu T.V, Low grade central osteosarcoma- report of a rare entity with review of literature SEAJCRR SEPT-OCT 5 (5) ISSN: 2319-1090 Page 2459
9	Sithara Aravind1, Sangeetha K Nayanar1, Noushad Aryadan1, Sajith K Satheesh1, Sampada Desai2, Satheesh Babu TV Papillary Neoplasms of Breast- Experience at a Cancer Centre in South India, Scholars Academic Journal of Biosciences (SAJB) Sch. Acad. J. Biosci., 2017; 5(3):159-163, ISSN 2347-9515.
10	Sithara Aravind1, Sangeetha K Nayanar1, Noushad Aryadan1, Sajith Babu2, Satheesan Balasubramanian2 Cutaneous metastasis from follicular carcinoma thyroid - A rare behaviour of differentiated thyroid carcinoma, Scholars Journal of Medical Case Reports, Sch J Med Case Rep 2016; 4(9):650-652 ISSN 2347-9507
11	Sithara Aravind, Sangeetha K Nayanar, R Varadharaja Perumal A, TV Satheesh Baby, Satheesan Balasubramanian, High Grade Serous Cystadenocarcinoma of Testis- Case Report of a Rare Ovarian Epithelial Type Tumour, Journal of Clinical and Diagnostic Research. 2017 Jun, Vol-11(6).
12	Dr.Noushad.A. Dr.Sangeetha K Case report on Sarcomatoid carcinoma of Urinary bladder, Scholars journal of medical case reports
13	Early and Deeper Reduction in Paraprotein Predicts Improved Progression Free Survival in Transplant Ineligible Multiple Myeloma ”-Abstract published in “Clinical Myeloma lymphoma & Leukemia” journal(supplement) in March 2017
14	Lower doses of IVIG is a cost effective treatment option in children with newly diagnosed ITP ”- Abstract published in Pediatric Hematology Oncology journal special edition November 2016
15	Dr.KJ Philip, Dr.Sangeetha K Case report on Spindle cell variant of embryonal rhabdomyosarcoma in paratesticular region Sholars Journal of medical case reports

16	Dr.Noushad A, Dr.Sangeetha K Extensive intraductal positive carcinomas of breast- Retrospective audit of 4 years Sholars Journal of applied sciences
17	Soumya Das, Shamee Shastry, M. Murugesan, Poornima Baliga B What is it really? Anti-G or Anti-D plus Anti-C: Clinical Significance in Antenatal Mothers.; Indian J Hematol Blood Transfus DOI 10.1007/s12288-016-0729-0.
18	SB Dessai, D Adrash, M Geetha, S Arvind, J Bipin, S Nayanar, K Sachin, MS Biji, S Balasubramanian Pattern of care in operable endometrial cancer treated at a rural-based tertiary care cancer center [pg. 416] Indian Journal of Cancer 2016 July-September Volume 53 Issue 3
19	M.S.Biji Believing Jeny about her pain Journal of Pain & Palliative care Pharmacotherapy. Volume 31,2017, Issue 1, pg 73-75.
20	Biji MS, Vinin N.V, Abhina S.S, Bindu T, Geetha M Overall survival analysis of patients with brain metastases treated with palliative WBRT in a Tertiary Cancer Centre of North kerala Abstract published in Indian J Palliative care 2017;23:121-79
Other Publications	
1.	Nethi News letter
2.	Abhayam News letter
3.	Hospital Based Cancer Registry Report
4	Hospital Annual Report 2014-15

Educational Programmes and activities

With the increased incidence of cancer, more institutions are getting equipped for treatment of cancer. We realize the need for focused training in oncology, especially for medical and paramedical courses. This is a step towards better care for patients in the present milieu. It is already proposed to develop MCC as a Post-Graduate Institute of Oncology.

Regular Academic Programs:

All new cases are presented in the Daily Multi Specialty Board which are reviewed and decisions on treatment taken accordingly. Interactive discussions on a specific topic are carried out on all Wednesdays afternoon in the Radiation Oncology Cub. All Friday morning, lectures on the recent trends in oncological care by one faculty are carried out in the Centre. On Saturdays morning, Journal club/ lecture/ morbidity meet are carried out in the centre. Apart from the regular academic programs, Continuing Medical Education Program for Doctors and Post-Graduate Students of nearby Medical Colleges are organized by MCC.

Teaching Courses at MCC:

Sl No	Course	Duration	University/ Board
1	B. Sc MRT, (Medical Radiology Technology)	4 Years	Kerala University of Health Sciences
2	Basic Certificate Course in Community Palliative Nursing(BCCCPN)	6 weeks	Institute of Palliative Medicine, Kozhikode
3	Certificate Course in Community Palliative in Auxiliary Nursing Course(CCPAN)	3 Months	Institute of Palliative Medicine, Kozhikode
4	Fellowship in Head and neck oncology	1 Year	Institutional fellowship
5	Fellowship Programme in High Precision Radiotherapy	1 Year	Institutional fellowship
6	Fellowship in Gyneec Oncology	2 Years	Institutional fellowship
7	Fellowship in Oncopathology	2 Year	Institutional fellowship
8	Fellowship in Head & Neck Pathology		
9	Fellowship in Nutrition Oncology	1 Year	Institutional fellowship
10	Indian Association of Palliative Care Courses		
11	Distance education course in Cancer Pain and Palliative Medicine		
12	MEDIT Course		
	Advanced Diploma in Health Information Technology		
	Advanced Diploma in Clinical Engineering		
	Diploma in Healthcare Hospitality Management	6 Months	
13	Post Basic Diploma in Oncology Nursing	1 Year	

BSC MEDICAL RADIOLOGICAL TECHNOLOGY STUDENTS 2016-17



FIRST YEAR



SECOND YEAR



THIRD YEAR



FOURTH YEAR

Conferences and Training Programs Attended and Papers Presented by Staff and Students

Sl. No	Participant/Speaker	Conference/Meeting	Paper/Poster
1	Dr. Geetha/ Silpa Ajayakumar	Varian Oncology Summit	Participant
2	Dr. Geetha.M and Mrs. Resmi.K Bharathan	PRODVANCE	Participant
3	Dr. Geetha.M and Mrs. Resmi.K Bharathan	AROI	Participant
4	Dr. Geetha and Dr. Joneetha	Nuclear Medicine CME	Participant
5	Mrs Sheena and Mrs Vini	National Conference of Indian Society of Radiographers and Technologists(NCISRT)	Posters: Role of MRI in carcinoma of larynx – A pictorial assay MRI in Ca tongue- A pictorial review
6	Dr Vineetha	pediatric solid tumor workshop at TMH	Participant
7	Dr Vineetha	Summer Pedicon 2016	Participant
8	Dr CKN	Transfusion Medicine CME	Topic: Transfusion medicine support in hematological Malignancies
9	Dr CKN	Best of EHA	poster : on “Early and Deeper Reduc- tion in Paraprotein Predicts Improved Progression Free Survival in Transplant Ineligible Multiple Myeloma”
10	Dr Vineetha	PHOCON 2016	Poster:Lower doses of IVIG is a cost effective treatment option in children with Newly diagnosed ITP
11	Dr CKN	CASCADE 2017	Faculty
12	Dr CKN	International Myeloma Conference	poster : Impact of early reduction in paraprotein on PFS in transplant ineli- gible myeloma
13	Dr CKN	BMT consensus meeting	Participant
14	Dr. Sajith Babu	Sialology workshop	presentation : Submandibular gland flap
15	Dr. Sajith Babu	FHNO	video presentation: submental flap for maxillectomy defects
16	Dr.Noushad	APCON 2016	Poster: Extensive intraductal positive carcinomas of breast- Retrospective audit of 4 years
18	Dr.Sithara A	APCON 2016	Poster: Papillary neoplasms of breast- Retrospective audit of 4 years
19	Dr.Manjusha P	IAPM State chapter meeting	Anaplastic carcinoma of Thyroid of 5 years
20	Dr.Sajith KS	IAPM State chapter meeting	Case presentation on Spindle cell vari- ant of embryonal rhabdomyosarcom in paratesticular region

21	Dr.Sangeetha	Thyroid cancer conclave	Bethesda system of reporting thyroid cytopathology
22	Dr.Sangeetha K Nayanar	International conference & Workshop on Cancer genetics	Participant
23	Dr. R.PARTHIBAN	Good Clinical Laboratory Practices-ISO	Participant
24	Mrs. Sabita Koova	NACO training Program	Participant
25	Mr. Sabeesh & Mr. Shibin	workshop on Nucleic Acid Amplification Technique	Participant
26	Dr. Mohandoss	PG workshop & Training "JHAKAAS	Participant
27	Dr. Mohandoss	attended CME in Transfusion Medicine Update 2016	Participant
28	Dr. Mohandoss	International Conference – Joint Congress of AABB & AATM at Bengaluru	Participant
29	Dr. Mohandoss	CME on Nucleic Acid Amplification Technique	Participant
30	Mrs.Sindhu N.R.	1st State Conference of Palliative Care Nurses,Kerala	Presentation: Nutrition in Palliative care patients
31	Dr.M.S.Biji	two day preconference workshop on EPEC	Participant
32	Dr.M.S.Biji	24th International Conference of the Indian Association of Palliative Care ,IAPCON	Poster: Overall survival analysis of patients with brain metastases treated with palliative WBRT in a Tertiary Cancer Centre of North kerala
33	Dr. Pramod Sankar	First international digital dental conference	Participant
34	Dr. Pramod Sankar	International MFP symposium	Poster : "MFP Services at a Tertiary Cancer Centre"

CONFERENCE/SEMINAR CONDUCTED & DAYS OBSERVED

Sl. No	Conference/Seminar	Department/Division
1	Operational Research	Division of Clinical Research & Biostatistics
2	ECOLI-2016- Continuing laboratory educational programme	Division of Laboratory Services/Blood Bank
3	International Day of Radiology	Department of Imageology
4	TECHNOSCAN 2017	Department of Surgical Oncology
5	IOCON 2016	Department of Imageology
6	Navajeevan- a get together of HSCT survivors	Department of Clinical Haematology/Medical Oncology
7	three days Hands on workshop on molecular techniques in clinical perspective	Division of Genetics/Cytogenetics
8	Anti tobacco day observation	Department of Community Oncology
9	International day against drug abuse and illicit trafficking	Department of Community Oncology
10	national cancer day	Department of Community Oncology
11	World cancer day	Department of Community Oncology
12	World Palliative care day	Department of Palliative Medicine
13	Palliative care day	Department of Palliative Medicine
14	Enercon 2017- one day training program on Electrical safety and conservation methods	Department of Engineering & Maintenance
15	Continuing Pharmacy Education program	Pharmacy Division
16	Ignited Insight -2017-14th CNE	Department of Oncology Nursing
17	Nurses Day	Department of Oncology Nursing
18	Astha -2016	Department of Oncology Nursing
19	National conference on “Recent Innovations in Nursing Care & our Contribution”	Department of Oncology Nursing
20	World Breast cancer Awareness day (Pink Ribbon day)	Department of Cancer Registry & Epidemiology

ACCOUNTS 2016-17

Varma & Varma

Chartered Accountants

INDEPENDENT AUDITORS' REPORT

To,
The Members,
The Malabar Cancer Centre Society,
Thalassery.

Report on the Financial Statements

We have audited the accompanying financial statements of THE MALABAR CANCER CENTRE SOCIETY, THALASSERY, which comprise the Balance Sheet as at 31st March 2017, Income & Expenditure Account for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

The Management of the Society is responsible for the preparation of these financial statements that gives a true and fair view of the financial position and financial performance of the Society. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Society's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.



Varma & Varma

Chartered Accountants

Basis for Qualified Opinion

a) As stated in Note No.20(B)(8) attached to the accounts, the Society is accounting for retirement/compensated absences due to employees on cash basis and not on actuarial basis which is contrary to the Accounting Standard 15 – Employee Benefits (Revised) issued by The Institute of Chartered Accountants of India.

The impact of the above deviation could not be ascertained at this stage.

Qualified Opinion

In our opinion and to the best of our information and according to the explanations given to us, except for the possible effects of the matter described in the Basis for Qualified Opinion paragraph, the financial statements gives a true and fair view in conformity with the accounting principles generally accepted in India :

- a) In the case of the Balance Sheet, of the state affairs of the Society as at 31st March, 2017, and
- b) In the case of Income & Expenditure account, of the excess of Expenditure over income for the year ended on that date.

Emphasis of Matter

- a) We draw attention to Note No 20(B)(2)(a) regarding balance in Grant in Aid under Plan Fund in respect of certain completed projects.
- b) We also draw attention to Note No 20(B)(2)(b) regarding Grant-in-aid received under Plan Fund in respect of a project which is pending commencement/completion.

Our opinion is not modified in respect of these matters

For VARMA & VARMA
(FRN: 0045325)


(PRASANTH. D. PAI)
PARTNER
CHARTERED ACCOUNTANTS
MEMBERSHIP No: 217750

Place : Kannur

Date : 16.12.2017

MALABAR CANCER CENTRE SOCIETY, THALASSERY
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2017

PREVIOUS YEAR	EXPENDITURE	CURRENT YEAR	PREVIOUS YEAR	INCOME	CURRENT YEAR
16,43,00,554	Pharmacy Consumption	19,11,47,865	9,10,74,215	Grant-in-aid - Revenue Grant	10,25,36,338
14,70,04,344	Salary, stipend, wages and allowances	17,03,03,848	15,67,61,169	Revenue from Hospital Operation	19,76,71,675
70,87,592	Employer's contribution to EPF	73,20,265	17,68,07,162	Pharmacy collection	21,02,12,093
24,01,376	Recruitment Expenses	15,83,880	4,70,336	Penal Liquidation charges received	4,569
3,95,58,674	Consumables/Other treatment expenses	4,29,50,301	8,19,811	Rental income	7,83,394
1,57,42,402	Energy charges	1,73,62,285	40,14,510	Income from Training & Teaching	46,86,200
8,76,391	Printing & Stationery	12,65,400	43,02,647	Donations & Contribution	29,30,714
6,30,064	Postage and telephone expenses	6,64,387		Income from Early Cancer	
89,603	Rates & Taxes	6,87,016	2,61,475	Detection camp	2,01,125
10,07,612	Travelling & Conveyance expenses	11,36,990	67,650	Income from Ambulance service	41,030
10,91,166	Vehicle running & maintenance expenses	12,30,033	73,87,993	Interest income	98,52,958
40,30,398	Repairs & Maintenance	36,64,763	38,31,226	Other incomes	43,58,250
68,81,520	Security Service charges	84,51,988		Excess expenditure over income	
54,83,577	Cleaning & Laundry charges	83,78,006	5,04,77,512	transferred to Balance Sheet	2,87,40,906
43,13,080	Subscription	44,76,325			
26,95,407	Free food to patients & bystanders	32,32,955			
1,74,800	Auditor's Fee	1,75,000			
84,955	Professional Charges	4,43,553			
7,04,000	Insurance charges	7,57,029			
9,15,868	Advertisement charges	12,22,963			
92,96,041	Annual maintenance contract charges	1,10,20,741			
45,043	Community Oncology expenses	1,08,677			
2,83,000	Affiliation & Registration fee paid	47,000			
2,57,458	Programme expenses	8,37,848			
4,91,827	Miscellaneous expenses	11,36,764			
3,45,637	Provision for doubtful debts/advances	-			
8,04,83,317	Depreciation written off	8,24,13,369			
49,62,75,706		56,20,19,252	49,62,75,706		56,20,19,252

Place: Thalassery
Date: 27/07/2017

Vide our separate report of even dated attached

for VARMA & VARMA

(PRASANTH. D. PAI)
Partner

Chartered Accountants Membership no. 217750

MALABAR CANCER CENTRE SOCIETY, THALASSERY
BALANCE SHEET AS AT 31-03-2017

PREVIOUS YEAR	CAPITAL & LIABILITIES	CURRENT YEAR	PREVIOUS YEAR	ASSETS	CURRENT YEAR
51,53,12,942	CAPITAL FUND	62,85,56,416	47,86,40,370	FIXED ASSETS	54,90,65,239
54,15,06,476	GRANT-IN-AID-CAPITAL GRANT (PENDING UTILISATION)	63,45,60,805	15,95,18,368	WORK IN PROGRESS UNDER PLAN FUND	12,73,40,007
11,35,54,467	ADVANCES & DEPOSITS	12,97,99,498	95,20,547	DEPOSITS AND ADVANCES	89,90,229
8,89,31,135	TRADE CREDITORS	10,32,65,419	5,91,22,681	TRADE DEBTORS	10,44,40,994
3,71,670	PATIENTS' WELFARE FUND	11,83,600	5,19,08,150	CLOSING STOCK	5,97,76,681
1,14,910	SEMINAR EXPENSES FUND	6,11,600	50,40,18,314	CASH & BANK BALANCES	65,36,89,905
29,36,830	OUTSTANDING LIABILITIES	53,25,717			
1,26,27,28,430		1,50,33,03,055	1,26,27,28,430		1,50,33,03,055

Place: Thalassery
Date: 27/07/2017

Vide our separate report of even dated attached

for VARMA & VARMA

(PRASANTH, D. PAI)
Partner

Chartered Accountants Membership no. 217750

THE MALABAR CANCER CENTRE SOCIETY, THALASSERY, KANNUR

NOTE NO.20:

SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS FORMING PART OF ACCOUNTS FOR THE YEAR ENDED 31st MARCH 2017.

A) SIGNIFICANT ACCOUNTING POLICIES:

(1) BASIS OF PREPARATION OF FINANCIAL STATEMENTS:

The financial statements have been prepared under the historical cost convention and on accrual basis of accounting unless otherwise specifically stated.

(2) USE OF ESTIMATES

The presentation of financial statements in conformity with the generally accepted accounting principles require estimates and assumptions to be made that affect the reported amount of assets and liabilities on the date of the financial statements and the reported amount of revenue and expenses during the reporting period. Difference between the actual result and estimates are recognised in the period in which the results are known/ materialised.

(3) GRANT IN-AID:

a) Revenue Grant

Grant in aid received from Govt. of Kerala under non plan fund is considered as revenue grant and credited in the income and expenditure account as and when received.

b) Capital Grant

Grant in aid received from Govt. of Kerala, MPLAD Scheme and Govt. of India for Tertiary Cancer Centre under plan fund for infrastructure development is considered as capital grant. Grant in Aid received under plan funds is transferred and included under Capital Fund Account on completion of the project.

(4) FIXED ASSETS:

Fixed assets are stated at cost of acquisition less depreciation. Fixed assets received as donations in kind are accounted at nominal value

(5) DEPRECIATION:

Depreciation on fixed assets has been charged under written down value method at the rates prescribed under the Income-Tax Rules except in the case of Library Books which are depreciated @ 15%.

(6) INVENTORIES:

Inventories comprising medicines and consumables are valued at lower of cost or net realizable value, item wise. Cost of the above inventories comprises of all costs of purchase and other costs incurred in bringing the inventories to their present location after adjusting for VAT wherever applicable.

(7) EMPLOYEE BENEFITS:

The retirement benefits/compensated absences due to employees at the time of retirement/termination are accounted for on cash basis



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DIRECTOR

MALABAR CANCER CENTRE

(8) REVENUE RECOGNITION:

Revenue is recognized on accrual basis except revenue due from inpatients as on 31.03.2017 on various accounts like Room rent, Investigation charges, Surgery charges, Service charges etc. are recognized only at the time of their discharge.

Interest income is recognized on time proportion basis taking into account amount outstanding and rate applicable.

(9) PROVISIONS. CONTINGENT LIABILITIES AND CONTINGENT ASSETS:

Provisions are recognized when the Society has a present obligation as a result of a past event, for which it is probable that a cash outflow will be required and a reliable estimate can be made of the amount of the obligation. Provisions are discounted to its present value and are determined based on the society's estimate required to settle the obligation at the Balance Sheet date. These are reviewed at each Balance Sheet date and adjusted to reflect the correct Society's estimates.

Contingent liabilities are disclosed when the Society has a possible obligation or a present obligation and it is probable that a cash flow will not be required to settle the obligation.

Contingent assets are neither recognized nor disclosed in the accounts.

(10) IMPAIRMENT OF ASSETS:

The Society assesses at each Balance Sheet date whether there is any indication that an asset may be impaired. An asset is identified as impaired, when the carrying value of the asset exceeds its recoverable value. Based on such assessment, impairment loss if any is recognized in the Income and Expenditure Account of the period in which the asset is identified as impaired. The impairment loss recognized in the prior accounting periods is reversed if there has been a change in the estimate of recoverable amount.



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A handwritten signature in black ink, appearing to be "V. S. S.", written over the printed name of the Director.

DIRECTOR

MALABAR CANCER CENTRE

B. NOTES ON ACCOUNTS:

1. The Society is in possession of building and hospital equipments gifted by SNC Lavlin Inc. Canada (foreign source). The value of the said assets were not taken into account for want of proper details from the donor till 31-03-2005. However, on the basis of recommendation by the Comptroller and Auditor General of India (CAG) in a prior year, the Society valued its fixed assets as on 31-03-2001 at Rs.10,85,37,233/-. The said value was brought in the books on 01-04-2005 and accounted as Fixed assets, corresponding credit to the Capital fund.
2. Grant in Aid
 - a) Balance in grant in aid under Plan Fund shown under the head 'Grant-in-Aid(Plan)' includes Rs45.87 Lakhs, representing actual expenditure of eligible projects being less than the Grant in Aid received towards the said projects. The Society is in the process of obtaining the Administrative Sanction in respect of utilization of the said surplus amount for other eligible projects.
 - b) Balance in grant in aid shown under the head 'Grant-in-Aid(Plan)' includes Grant in Aid Received under Plan Fund in respect of a project which is pending commencement/completion. necessary steps are being taken to commence the pending project.
3. SNC Lavlin Inc. Canada had promised for a foreign contribution of Rs 2,530 Lakhs and the Society has obtained prior permission from the Ministry of Home Affairs, Government of India, vide their letter No: 11/21022/94(506) / 2000-FCRA- 1Y dated 26/04/2001 under section 6(IA) of Foreign Contribution (Regulation) Act, 1976. However, no foreign contribution has been received as at the year ended 31-03-2017.
4. Advances received under Patient Welfare Schemes represent amount received from Karunya Benevolent Fund, Sukrutham Anti Cancer Treatment Scheme, Prime Minister National Relief Fund etc received towards the treatment facilities to be extended to individual patients. Further the society has also extended treatment facilities to various patients under these Patient Welfare Schemes prior to the receipt of amount under these schemes. The amount receivable under Karunya Benevolent Fund, based on the instruction No.KBF/B/57/2012 dated 21.10.2017, issued by the Administrator of Karunya Benevolent Fund, the amount received in advance towards the treatment of patients can be utilised towards the treatment of other patients under this scheme. Based on the said instruction, the amount receivable under the scheme are net off against the advance received. The society is in the process of compiling patient wise list receivable/payable under the KBF scheme and in the opinion of the society, the amount receivable under the scheme are fully receivable and no provision is required to be made at this stage.
5. Salary advance Rs 5.52 Lakhs represents temporary advances paid to two doctors deputed in the hospital during the period from August, 2009 to September, 2011, which were to be adjusted from



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DIRECTOR
MALABAR CANCER CENTRE

the salary due to doctors from the State Government. The two doctors have already left their employment in the Society and the advance is pending settlement as on date. Though the Society is taking steps to recover the said advance, as a matter of abundant caution, the said amounts have been fully provided for in the books.

6. As given in Accounting Policy No 7, the society is following the practice of accounting of retirement/compensated absences due to employees on cash basis and the liability towards retirement/ terminal benefits have not been quantified and not provided for.
7. The society has not received any intimation from suppliers regarding their status under the Micro, Small and Medium Enterprises Development Act, 2006 and hence disclosures, if any, relating to amount unpaid as at the yearend together with the interest paid/payable as required under the said Act have not been furnished.
8. Previous year's figures have been regrouped / reclassified wherever necessary in order to suit current year's disclosure.

Place: Thalassery
Date: 16.12.2017

+



DIRECTOR
MALABAR CANCER CENTRE

For VARMA & VARMA
(FRN: 0045325)

(PRASANTH. D. PAI)
PARTNER
CHARTERED ACCOUNTANTS
MEMBERSHIP No: 217750

FACILITIES

Treatment Facilities

- Two major Operation Theatres
- Minor theatre
- Endoscopy unit
- Laser surgery unit, CUSA, Waterjet dissector, Harmonic scalpel
- HD Laparoscopy unit
- Videocolposcope
- High End Dual energy Linear Accelerator with Rapid arc(Varian)
- Elite-80 Tele therapy machine
- CMS XiO Treatment planning system
- HDR Brachytherapy & planning system
- CT Simulator
- Conventional Simulator and Ultra Simulator
- Mould room facilities for patient immobilization
- Well-equipped Operation Theatre to perform all major oncological surgical procedures
- Bone marrow transplant unit
- IP & Day care chemotherapy facilities
- Physiotherapy Division
- Speech and Swallowing Therapy
- Clinical Dietetics and Nutritional Therapy
- Bone marrow transplantation unit-First allo-transplantation for aplastic anemia in Northern Kerala , first totally free bone marrow transplantation for a multiple myeloma patient in northern Malabar

Radiotherapy machines

- Elite 80-Tele cobalt
- High end Dual energy Linear accelerator
- HDR Microselectron brachytherapy
- Treats 80-95 patients per day
- High precision radiotherapy- IMRT,IGRT,SBRT

24 Hours Clinical Laboratory Facilities

- Hematological investigations
- Biochemical investigations
- Cytological Examinations
- Immunological investigations
- Histopathological Examinations
- Immuno Assay-Tumor marker, Hormone detection, Viral diagnosis

Radiological investigations

- MRI Scan
- 4D CT
- Multi Slice Spiral CT Scan
- Ultra Sound Scan
- Digital Mammography machine with stereo tactic biopsy facility
- Digital X-ray
- Portable X-ray machine with 60MA
- Endoscopic services with Oesophagogastric, Colonoscopic and Bronchoscopic examinations

Diagnostic facilities

1. X-ray: GE DX 525 X-Ray Unit was commissioned in 2005 along with Automatic Film Processing Unit. A GE Genius Portable X-Ray machine is also available in the Department.
2. Mammography: Has one of the best mammography machine- Hologic Selenia Dimension with 3D mammography, stereotaxic and mamotome biopsy facility. Unit also has CAD facility.
3. Ultrasound Scan: Three Ultrasound Scanners available - GE LOGIQ 200 Ultrasound Machine, Portable Ultrasound Scanner MUS 602, Color Doppler Ultrasound Scanner (Hitachi EUB).
4. Major services includes routine abdominal scans, Doppler,
5. CT Scanner: The GE Lightspeed Multi slice CT scanner with GE Advantage Sim Virtual simulation workstations was commissioned in 2007. The major activity includes routine spiral CT scan, CT Angiography, Multi-phase studies, guided biopsies, drainage procedures, pigtail insertion and treatment planning.
6. MRI Scanner: HDxT 1.5T Signa 16 Channel GE MRI scan was commissioned in January 2013. The machine has capability for routine imaging, whole body imaging, whole body DWI, endorectal coils for prostate, rectal and cervix imaging with prostate spectroscopy, dedicated breast coils and non-contrast whole body angiography.
7. 4D CT Scan
8. PACS: Has GE Centricity PACS.
9. State of art Clinical Laboratory for all usual tests.
10. Histo-Pathology Department for Cytological and Histo-pathological examinations.
11. Rooms for General examinations, Gynec examinations, Dental examinations etc., with an attached area for minor procedures.
12. Full-fledged Microbiology Laboratory

Intervention Radiology

1. USG guided biopsies, drainage, pigtail insertion and brachytherapy planning
2. Robot arm assisted RFA

Clinical facilities

1. Linear Accelerator (Varian Clinic iX)
2. Nucletron 16 Channel HDR Brachytherapy
3. Tele Cobalt 60
4. Treatment Planning System
5. CT Simulator
6. Conventional Simulator
7. Mould Room
8. Outpatient service is being conducted 6 days a week.
9. Average 1200 outpatient visits a week.
10. Cancer Palliative Medicine Clinic.
11. Recognized institution for possession and supply of Oral Morphine.
12. Operation theater well equipped to perform all major surgical procedures
13. Endoscopy services with Oesophagogastric, Colonoscopic and Bronchoscopic examinations.

14. Full-fledged Blood Bank with all modern accessories and facilities for component separation.
15. Day care chemotherapy ward, Separate general wards for male and female in-patients.
16. Semi payments pay wards and single accommodation pay wards
17. Post-operative and pre-operative wards are also attached with this.
18. 24 hours Pharmacy dispensing all the medicines for cancer patients.
19. Tobacco Cessation Clinic
20. Stoma Clinic

Supportive Facilities

1. Home care services: Home care services provided to patients staying nearby and who are unable to travel to MCC for availing treatment.
2. Hospital Library for patients and relatives: A unique Hospital library for patients, their relatives and staff is functioning in the centre since 2005. The library is funded by Kerala State Library Council.
3. Tele Medicine Unit: Telemedicine facility has been started in MCC with financial assistance from NRHM and technical assistance from C-DAC and Kerala State IT mission.
4. National Knowledge Network connectivity
5. Dynamic website www.mcc.kerala.gov.in in English and Malayalam Languages
6. Implemented eProcurement System of Govt. of Kerala.
7. Two Smart Class Rooms
8. 26 acres of elevated greenery land
9. 11KV dedicated line, which can drop power up to 2.5MW
10. Transformer capacity of 1600KVA
11. DG of 250 KVA and 500KVA
12. Effluent Treatment Plant with 110 KLD
13. Incinerator with capacity of 25KG/hr
14. Open well to cater all needs of the Hospital
15. Incinerator with capacity of 15kg/hr.
16. Canteen for Patients and staff
17. Dormitory for bystanders
18. Preventive Oncology Facilities
19. Cancer awareness classes and early cancer detection camps
20. Screening tests like Mammogram & Pap smear.

Patient Welfare Activities

The Patient Welfare Committee was constituted for the smooth functioning of our Patient Welfare Activities has attributed a boost to our patient services and management. The Committee consists of Doctors of different specialties, representatives from Administrative section, Social Scientist and Nursing personnel. The Committee co-ordinates all the welfare activities of the patients who are undergoing treatment at this Centre. It promotes to raise the money for the patient welfare fund from the general public as well as staff members of Malabar Cancer Centre. Majority of the staff members generously donate to this fund. This fund is utilized for the treatment/investigations for the needy patients after proper assessment.

Patient Welfare Schemes

- Comprehensive Health Care Project for Scheduled Tribe patients.
- Prime Minister's National Relief Fund
- Chief Ministers Relief Fund
- Cancer Suraksha Scheme
- Thalolam
- Sneha Santhwanam
- CHIS PLUS
- PMRS (Pondicherry Medical Relief Society)
- Employees State Insurance Credit facility
- Karunya Benevolent fund

Patient Free Food Scheme:

As most of our patients belong to lower socio-economic strata struggling to earn for their meal, with the financial assistance from philanthropists and like-minded organizations, all in-patients are given food (three times a day) at free of cost.

Patient Welfare Fund:

The Patient Welfare Committee co-ordinates all the welfare activities of the patients who are undergoing treatment at this Centre. It promotes to raise the money for the patient welfare fund from the general public as well as staff members of Malabar Cancer Centre. This fund is utilized for the treatment/investigations for the needy patients after proper assessment.

Hospital Library for Patients and Relatives:

A unique Hospital library for patients, their relatives and staff is functioning in the centre since 2005. The library is funded by Kerala State Library Council.

Home care Services:

Home care services provided to patients staying nearby and who are unable to travel to MCC for availing treatment.

Drug Bank:

Apart from the above a Drug Bank is also formulated for collection of drugs from Doctors in and around Thalassery and also sample medicines issued from various pharmaceutical companies. Such medicines are issued free of cost to the needy poor patients, who are undergoing treatment from this Centre.

Support Groups:

MCC initiates the formation of five supports groups for the welfare and rehabilitation of Breast and Colostomy, Bone Marrow Transplantation, All survivors, Limb Salvage Surgery patients;

- 1) Thejas: Thejas (Breast Support group) is started on 30-09-2009
- 2) Spandhanam: Ostomy Association started on 21-11-2011
- 3) Navajeevan:
- 4) Amrutham
- 5) Sanjeevani

How to Support MCC

An Appeal:

As you are aware that cancer treatment is expensive and many people could not afford the expenditure without some kind of financial assistance. Our centre is also committed to offer free treatment to financially and socially backward patients and others on a concessional rate. Many of our patients had already applied for financial assistance from various agencies. So many broad-minded organizations and agencies had already helped our poor patients and so many of them were expressing their willingness to help such patients in future also.

Generous donations are welcome to realize the dream: It may please be noted that donations to MCC are exempted from income tax according to rule 80G of the Income Tax Act.

Donations to MCC may be forwarded to
**Director, Malabar Cancer Centre or to the following Account in IDBI,
Thalassery Branch:**

Account Number	Bank	Branch	IFSC Code
1154104000017958	IDBI	Thalassery	IBKL0001154

Patients Free Food Scheme

Recently MCC had started a “Patients Free Food Scheme” for all patients in MCC, irrespective of their financial status. MCC is looking forward for financial assistance as donations from individuals, corporate institutions, State owned Corporations, in this regard. Since November 2008, this programme has been running successfully. However as more and more patients are visiting the Centre the funds kept for this purpose are likely to be exhausted. In this regard MCC hereby request for financial aid to run this charity work and seek help from likeminded people and organizations to join hands for this noble venture.

Generous donations are welcome to realize the dream: Donations to MCC may be forwarded to Director, Malabar Cancer Centre or to the following Account in SBI:

Account Number	Bank	Branch	IFSC Code
30469577061	State Bank of India (SBI)	Thalassery	SBIN0000926

For further details Contact:

Shri. Rajesh A.K,
Administrative Officer,
Malabar Cancer Centre, Thalassery
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Published by
Malabar Cancer Centre
(An autonomous centre under Government of Kerala)
Thalassery-670 103, Phone : (+91) 0490 2355881, Fax: 0490 2355880
E-mail: mcctly@gmail.com Website: www.mcc.kerala.gov.in