

MALABAR CANCER CENTRE - ANNUAL REPORT 2015-16

ANNUAL REPORT 2015-16



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(An autonomous centre under Government of Kerala)
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**MALABAR
CANCER CENTRE**
THALASSERY
KANNUR DISTRICT, KERALA
(An autonomous centre under
Government of Kerala)



MALABAR CANCER CENTRE
THALASSERY

ANNUAL REPORT
2015-2016

TABLE OF CONTENTS

| No | Contents | Page No |
|----|---|---------|
| 1 | From Directors Desk | 05 |
| 2 | From the Desk of Administrative Officer | 07 |
| 3 | About MCC | 08 |
| 4 | Mission & Vision | 08 |
| 5 | Facilities Available | 09 |
| 6 | Treatment Facilities | 09 |
| 7 | Diagnostic Facilities | 09 |
| 8 | Clinical Facilities | 10 |
| 9 | Supportive Facilities | 10 |
| 10 | Patient Welfare Activities | 11 |
| 11 | Supportive Groups | 11 |
| 12 | Educational Programmes and Activities | 12 |
| 13 | Teaching Courses at MCC | 12 |
| 14 | Organization Structure | 13 |
| 15 | GB, EC and Other committees | 13 |
| 16 | Departments & Divisions | 16 |
| 17 | MCC Profile at a Glance | 17 |
| 18 | Highlights for the year | 17 |
| 19 | Academic and Research Collaborations | 17 |
| 20 | Department of Radiation Oncology | 18 |
| 21 | Department of Imageology | 22 |
| 22 | Department of Clinical Hematology and Medical Oncology | 25 |
| 23 | Department of Surgical Oncology | 29 |
| 24 | Department of Clinical Laboratory Services and Translational Research | 36 |
| 25 | Department of Cancer Registry and Epidemiology | 45 |
| 26 | Department of Community Oncology | 54 |
| 27 | Department of Onco Anesthesiology | 57 |
| 28 | Department of Cancer Palliative Medicine | 58 |
| 29 | Department of Dentistry and Rehabilitation | 61 |
| 30 | Department of Engineering and Maintenance | 62 |
| 31 | Department of General Administration | 64 |
| 32 | Department of Oncology Nursing | 76 |
| 33 | Conferences and Training Programs Attended & Papers Presented by Staff and Students | 78 |
| 34 | Publications | 82 |
| 35 | Research Projects | 84 |
| 36 | conference/ seminar conducted/days observed | 91 |
| 37 | Accounts 2015-2016 | 92 |
| 38 | Photo Gallery | 99 |
| 39 | How to Support MCC | 100 |

FROM DIRECTOR'S DESK



Its with pride and pleasure, the annual report for the year 2015-16 is presented. The year presents a mixed feeling in the development and growth of the institution. The establishment of Population based cancer registry and the difficulties in getting the data from various sources was an eye opener. MCC being a stand alone cancer centre with limited support on non-oncology specialties, its ability to provide quality cancer care to patients over to the commitment of staff.

The number of patients visiting the centre showed a small dip which was a blessing in disguise since the number of physicians were also less during the period. The request for remuneration parity was under process in Government. The difficulty in retention of doctors still continues. There were 3910 new cancer patients in the total registration of 5782 and 50413 follow up visits to the institution during the period. This constitutes nearly 10% of total new cancer patient load in the state. As the institution has set up Clinical hematology division under Department of Clinical hematology and medical oncology, number of patients with hematological disorders too seek

treatment. There were over 1200 major surgeries performed in two operation theatres that too with visiting anaesthesiologists. The brachytherapy theatre was used for performing minor surgeries and biopsies. Around 925 patients received radiotherapy during this period. The second linear accelerator Versa HD was installed. This is a linear accelerator with latest FFF technology and it is the first of the kind in Government sector. The day care chemotherapy unit handles 60-65 patients per day.

On the diagnostic front, Digital mammography with tomosynthesis was installed during this period. The equipment was first of the kind in the state and it enhanced the diagnostic accuracy of the early breast cancer. The equipment has high throughput that helps in community projects. First phase of e-health Health information system was implemented. This will enable the patients to get timely service.

The guidelines for attending conferences and workshop helped faculty to attend the conferences through the institution. There were 49 conference presentations on various studies conducted in MCC. Institution conducted 20 continuing education pro-

grams and workshops during this period. There are 89 IRB approved projects and three of them are externally funded ones. Twenty one publications in peer reviewed journals by faculty especially in a compromised situation of lack of post graduates is a commendable achievement. Scientific Advisory Committee meeting was held on 21st May 2016. The committee recommendations were submitted to Government.

The bone marrow transplantation program makes steady strides. The construction of pediatric oncology block is slow paced. The pediatric oncology block is considered as flagship program of the institution. The building is designed as second home for child cancer patients. It is expected that the construction would be complete soon.

The efforts of MCC to have clean hospital and its premises and its venture to have a plastic free environment made it eligible for two prestigious awards. Kerala state pollution control board award and

Kerala Suchithwa mission Golden crow award were received. These actually infused more responsibility in the staff and institution to maintain the decorum and satisfy the expectations

The department of community oncology could make significant impact in cancer awareness and cancer control activities in the northern districts. Exhibitions and seminars on cancer were other activities carried out by the department. The association with various local self government bodies helped the process to be effective. Anti-tobacco activities including regular publication of Nethi, Abhayam etc also form the thrust areas.

Hope this report shall provide an overview of the activities of the institution during the aforementioned period. 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.

FROM THE DESK OF ADMINISTRATIVE OFFICER



Malabar Cancer Centre (MCC) is an autonomous Centre, under Department of Health & family Welfare, Government of Kerala. 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 hopefully the constructions works will be in full swing.

There has also been noticeable improvement in key areas like clinical excellence, patient care, community 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 Critical Care Unit, to strengthen Radiotherapy, Imageology, Radiation Physics & Quality control, to set up 3rd Operation Theatre, to enhance Central Sterilization Division, to initiate construction of General Staff Quarters, to initiate construction of 1st Floor of Canteen, to strengthen Health Information Technology, to establish online Database & Journals, to enhance Medical Records Division, to purchase Microscopes & Grossing Work Station for Pathology Division, to construct Ramp to IP Block etc:-

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.

ABOUT MCC

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.

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.

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



Facilities Available

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 anaplastic 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 stereotactic biopsy facility
- Digital X-ray
- Portable X-ray machine with 60MA
- Endoscopic services with Oesophago-gastric, 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, stereotactic and mam-motome 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
13. Endoscopy services with Oesophagogastrotic, 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

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. Nucleotron 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

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 two supports groups for the welfare and rehabilitation of Breast and Colostomy cancer patients;

- 1) Thejas: Thejas (Breast Support group) is started on 30-09-2009
President: Smt. Pushpa Antony
Secretary: Sr. Dissy mol
Convener: Dr. Saina Sunil Kumar, Dept. of Cancer Registry and Epidemiology
- 2) Spandhanam: Ostomy Association started on 21-11-2011

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:

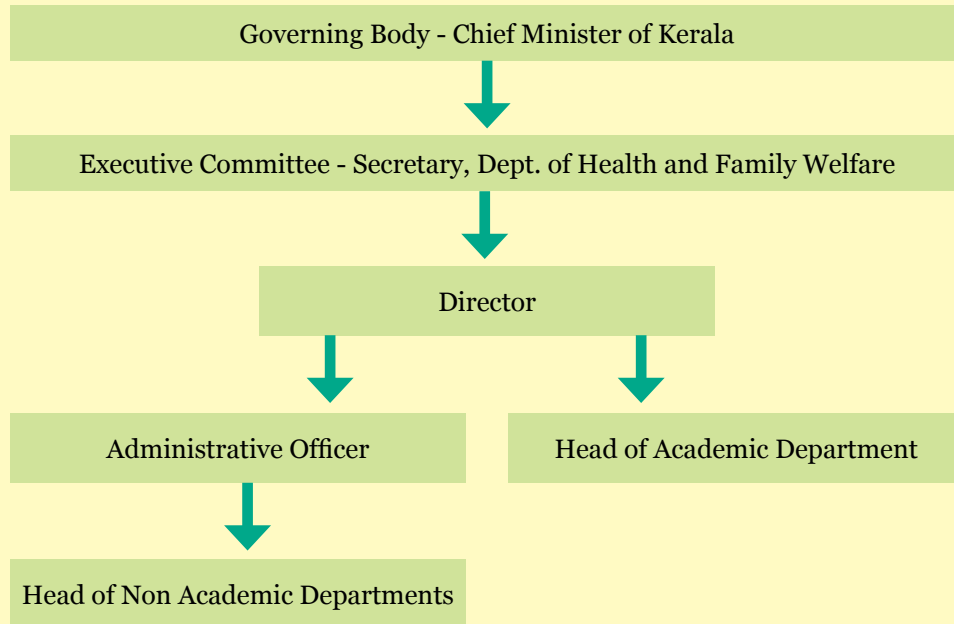
All new cases are presented in the Daily Multi Spe-

cialty 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 Surgical Oncology | 2 Years | Institutional fellowship |
| 7 | Indian Association of Palliative Care Courses | | |
| 8 | Distance education course in Cancer Pain and Palliative Medicine | | |

Organization Structure



Governing Body, Executive Committee and other Committees

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. The routine activities and functions of the Centre are supervised by the Executive Commit-

tee, 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.

Governing Body (GB): The Governing Body of the Society consists of 23 members.

| | | |
|----|-------------------------|--|
| 1 | Chairman | Shri.Oommen Chandy Chief Minister of Kerala |
| 2 | Vice-Chairman | Shri.V.S Sivakumar Minister for Health & FW, Kerala |
| 3 | Alternate Vice-Chairman | Shri. Aryadan Muhammed, Minister for Electricity, Kerala |
| 4 | Member | Shri. Jacob Secretary, Department of Finance, Kerala |
| 5 | Member | Shri.K.J.Antony, representing Secretary, Department of Power, Kerala |
| 6 | Member | District Medical Officer, Kannur |
| 7 | Member | Dr..Ellangovan IAS Secretary, Department of Health & FW, Kerala |
| 8 | Member | An eminent Medical Scientist |
| 9 | Member | Secretary, Department of Science, Technology & Environment |
| 10 | Member | One nominee of the Ministry of Health, Government of India |

| | | |
|----|--------------------------|--|
| 11 | Member | Dr.Raveendran Principal, Medical College, Kozhikode |
| 12 | Member | Shri.V.S.Senthil, Secretary- Planning & Economic Affairs Department, Kerala |
| 13 | Member | Dr.Radhakrishna Pillai Director- Rajiv Gandhi Centre for Bio technology, Trivandrum |
| 14 | Member | Dr.Geetha Director of Medical Education, Directorate of Medical Education, Trivandrum |
| 15 | Member & Secretary to GB | Dr.Satheesan.B Director, Malabar Cancer Centre, Thalassery |
| 16 | Member | Shri.Kodiyeri Balakrishnan M.L.A. of the Thalassery constituency |
| 17 | Member | Prof.K.A.Sarala President, District Panchayat, Kannur District |
| 18 | Member | Smt. Amina Maliyekkal Chairman, Thalassery Municipality, Thalassery |
| 19 | Member | Shri.M.P.Aravindakshan A public man from North Malabar region (to be nominated by Government of Kerala) |
| 20 | Member | One Head of the department nominated from Malabar Cancer centre, Thalassery by the Government. |
| 21 | Member | One nominee of the Charitable Society established for rehabilitation and financial assistance for poor cancer patients |
| 22 | Member | Dr.B.Radhakrishnan, Principal/Chief Executive Officer of Medical College, Pariyaram |
| 23 | Member | Dr.Paul Sebastian Director, Regional Cancer Centre, Trivandrum |

Executive Committee (EC): The Executive Committee shall be composed of;

| | | |
|---|---|---------------------|
| 1 | Dr.Ellangovan I.A.S. Secretary, Department of Health & Family Welfare, Government of Kerala | Chairman |
| 2 | Secretary, Department of Health & Family Welfare, Government of Kerala | Member |
| 3 | Shri.E.K.Praksh, Special Secretary, Department of Finance, Government of Kerala | Member |
| 4 | Smt.Amina Maliyekkal Chairman, Thalassery Municipality | Member |
| 5 | Shri.M.P.Aravindakshan, A public man from North Malabar to be nominated by Government of Kerala | Member |
| 6 | Secretary, Department of Planning, Government of Kerala | Member |
| 7 | Dr.Paul Sebastian, Director, Regional Cancer Centre, Trivandrum | Member |
| 8 | Dr.Satheesan.B, Director, Malabar Cancer Centre, Thalassery | Member/ Convener |

Scientific Advisory Committee:

| | | |
|---|--|---------------|
| 1 | Dr. T.G. Sagar, Director, Cancer Institute (WIA), Chennai | Chairperson |
| 2 | Dr. Manoj V. Murhekar, Deputy Director National Institute of Epidemiology(ICMR), Chennai | Member |
| 3 | Dr. M. Vijayakumar, Director, Kidwai Memmorial Institute of Oncology | Member |
| 4 | Dr. R M Nehru, Senior Scientist AERB, Atomic Energy Regulatory Board | Vice chairman |
| 5 | Dr. Praveen lal Kuttichira, Dean(Research), Kerala University of Health Sciences | Member |
| 6 | Dr. M. Manoharan, HOD,Department of Statistics, University of Calicut | Member |
| 7 | Dr. C. Sadasivan, HOD,Department ofKannur University | Member |
| 8 | Dr. Shripad D. Banavali, Professor and HOID Department of Medical and pediatric oncology, Tata Memorial Hospital, Mumbai | Member |
| 9 | Dr. Satheesan B, Director, Malabar Cancer Centre | Convenor |

Other Committees:

A] Internal Committee

| | |
|---|--------------------------------------|
| 1 | Administrative Council |
| 2 | HOD Committee |
| 3 | Academic Council |
| 4 | Purchase Committee-General, Medicine |
| 5 | Library Council |
| 6 | Canteen Committee |
| 7 | Waste management Committee |

| | |
|---|--------------------------------------|
| 8 | Institutional Review Board |
| | i) Scientific Review Committee |
| | ii) Institutional Ethics Committee |
| 9 | Data Monitoring and Safety Committee |

Other Committees:

B] External Monitoring Committee

| | |
|---|-------------------------|
| 1 | Building Committee |
| 2 | PBCR Advisory Committee |

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 Gyenaecology/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 |

MCC Profile at a Glance

| | |
|--|---------|
| • New Cancer Cases | : 3910 |
| • Follow up cases | : 47869 |
| • Non-cancerous Cases | : 1872 |
| • Non-cancerous cases (follow up cases) | : 2544 |
| • Major Surgeries | : 1208 |
| • Minor Surgeries | : 345 |
| • RT Patients (in fractions) | : 19126 |
| • Number of Patients RT | : 926 |
| • No. of Conferences Attended/Presented | : 49 |
| • Conference/Seminar conducted/Days Observed | : 20 |
| • IRB Approved Research Projects | : 89 |
| • Scientific Papers Published | : 21 |
| • Funded Projects | : 03 |

Highlights from the year 2015-16

- Installed Second Linear Accelerator, Versa HD
- Installed Kerala's first Breast Tomosynthesis machine
- Implemented Phase I of e-hospital Software of NIC
- Pollution Control Award
- Golden Crow Award

Academic and Research Collaborations

- Research collaboration with Centre for Development of Imaging Technology (C-DIT) in the area of Health Information Technology.
- Center for Development of Advanced Computing & Centre for Materials for Electronics.

DEPARTMENT OF RADIATION ONCOLOGY

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.

| | |
|----------------------------|---------------------|
| Dr.Thapesh Bhattacharyya | Assistant Professor |
| Dr.Vinin.N.V | Assistant Professor |
| Dr.Joneetha Jones | Assistant Professor |
| Dr.Greeshma.K.E | Assistant Professor |
| Dr. Sanudev Sadanandan V P | Assistant Professor |
| Dr. Kiran P | Assistant Professor |
| Dr. Shoaib Nawas | Assistant Professor |
| Dr. Arun S R | Senior Resident |



Dr. Geetha.M
Associate Professor & HOD

NEW EQUIPMENT ACQUIRED:

- Second Linear Accelerator, Versa HD was installed, commissioned and treatment was started during this period. Treatment of first case in Versa HD was initiated on 15/05/2016.
- Versa HD machine has multiple beam energies [(Xrays 6,10,15 MV), (Electrons 4,6,8,10,12,15 MeV)].
- Along with VERSA HD, Octavius 4D Phantom, Arc Check, Film Scanner, Microdiamond detector, Monaco Treatment Planning System was acquired.

ACTIVITIES & ACHIEVEMENTS

- Conducted CME on Head & Neck Cancers, ART 2015 on September 6th 2015
- Dr Cessal Thomas Kainical, Associate Professor of Radiation Oncology, RCC Trivandrum came for meet the faculty program on recent advances in current management of head and neck cancers on 25/07/2015.
- Dr.Prabhakar , Senior Physicist, Peter Mac Callum Cancer Centre, Victoria, Australia came for meet the faculty programme conducted on 17/10/2015.
- Second batch of Physics interns joined the department from October 2015. 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.
- Four MSc Physics students had done their projects in the department under the supervision of physicists.
- First Batch of BSc MRT students completed their course and internship
- Eleven students from second batch of B.Sc MRT Students undergoing their internship at MCC.

PATIENT SERVICES:

| Treatment Given | Number |
|---|---------------------------------|
| Patients treated with Radiotherapy | 2473 |
| Treatment on Cobalt | 1638 |
| Palliative Treatments | 912 |
| Radical Treatment | 1135 |
| Treatment on Linear Accelerator | 912 |
| | Clinac ix: 835 Versa HD:77 |
| Number of Rapid Arc | 484 |
| Number of 3DCRT | 310 |
| Number of IMRT | 1 |
| Number of Electrons | 40 |
| Number of SBRT | 3 |
| Number of Hybrid Arc | 31 |
| Treatment with HDR Brachytherapy | 75 |
| Total Sessions Treated | 246 |

PUBLICATIONS

- Bhattacharyya T, Purushothaman K, Puthiyotttil SS, Bhattacharjee A, Muttath G Immunological interactions in radiotherapy-opening a new window of opportunity. *Ann Transl Med.* 2016 Feb;4(3):51. doi: 10.3978/j.issn.2305-5839.2015.10.44.
- Puthiyotttil SS, Bhattacharyya T, Purushothaman K, Muttath G Phase 2 Study of Docetaxel, Cisplatin, and Concurrent Radiation for Technically Resectable Stage III-IV Squamous Cell Carcinoma of the Head and Neck: In Regard to Inohara et al. *Int J Radiat Oncol Biol Phys.* 2015 Oct 1;93(2):469-70. doi: 10.1016/j.ijrobp.2015.05.031.
- Bhattacharyya T, Purushothaman K, Puthiyotttil SS, Muttath G External Beam Radiation Therapy and Abiraterone in Men With Localized Prostate Cancer: Safety and Effect on Tissue Androgens. In Regard to Cho et al. *Int J Radiat Oncol Biol Phys.* 2015 Nov 1;93(3):719. doi: 10.1016/j.ijrobp.2015.06.028.
- Purushothaman K, Puthiyotttil SS, Bhattacharya T, Muttath G Adjuvant Radiation Therapy and Local Control After Surgical Resection in Patients With Localized Adrenocortical Carcinoma: In Regard to Sabolch et al. *Int J Radiat Oncol Biol Phys.* 2015 Oct 1;93(2):465. doi: 10.1016/j.ijrobp.2015.06.018.
- Vinin NV, Prem SS, Pillai A, Reddy KS, Halanaik D, et al. (2015) Early Cardiac Changes Due to Doxorubicin based Chemotherapy and Radiotherapy in Early and Locally Advanced Carcinoma Breast Patients: an Observational Study. *J Nucl Med Radiat Ther* S7:004. doi:10.4172/2155-9619.1000S7-004

CONFERENCES/SEMINAR/WORKSHOP

1. Multidisciplinary urooncology meet –Prostate cancer symposium held at Punjab institute of medical sciences, Jalandhar, Poster: Patterns of presentations in prostate cancer optimal therapy 2015
2. Tata memorial hospital women cancer initiative conference, Oral presentation: Cervical cancer chemoradiation in elderly
3. Aroicon 2015 lucknow, Poster presentation :Impact on laryngectomy and tracheostomy free survival in laryngopharyngeal cancer patients treated with different schedules of concurrent chemoradiation

4. "Basic Techniques in Molecular Biology in Clinical perspective"- 2016 held at Malabar Cancer Centre , Thalassery from 25th -27 th September 2015
5. ISMPO-ISO 2015 Conference held at Mumbai in November 2015 and did oral & poster presentation on ' An audit of pathological response to Paclitaxel and Trastuzumab in Her 2 Neu locally advanced Carcinoma Breast patients'
6. 5th Biennial International Metronomic & Antiangiogenic Meeting held at TMH, Mumbai in May 2016 and presented a poster on 'An audit of results of a triplet metronomic chemotherapy regimen incorporating a tyrosine kinase inhibitor in recurrent/ metastatic head & neck cancer patients.
7. International Workshop on Precision Radiotherapy organized by RCC, Thiruvananthapuram in September 2015.
8. CME on Lymphomas conducted by Kerala Chapter of Association of Radiation Oncologist of India held at Trivandrum in August 2015.
9. Pre Conference workshop/Annual meeting of Kerala Chapter Association of Radiation Oncologist of India held at Kochi in April 2015.
10. Workshop on "Basic Techniques in Molecular Biology in Clinical perspective"- 2016 held at Malabar Cancer Centre , Thalassery from 30th September to 2nd October 2016.
11. AMPICON 2015, Trivandram, Poster: Combined VMAT AND 3DCRT for the Esophageal Carcinoma over VMAT and 3DCRT
12. AMPI conference,Trivandrum,November,2015 Poster: Out of field photon dose measurement for VMAT Head and neck Cancer using 2D array.
13. Monaco Treatment planning system Training, Chennai, ,November 2015

CONFERENCE/WORKSHOP CONDUCTED

ART 2015, Malabar Cancer Centre, Thalaassery

Arc2015 ,Malabar cancer centre, thalassery

RESEARCH PROGRAMS

Completed projects

1. An audit of pathological response to Paclitaxel and Trastuzumab in Her 2 Neu positive locally advanced Carcinoma Breast patients .Dr Vinin N V, Dr Joneetha Jones, Dr Geetha M
2. An audit on pathological response to Paclitaxel and Carboplatin in Triple negative Bresat Cancer Patients . Dr Vinin N V, Dr Joneetha Jones, Dr Geetha M
3. Patterns of presentations in prostate cancer optimal therapy Dr.Geetha.M, Dr.Tapesh Bhattachayya,Dr.V inin.N.V, Dr. Joneetha Jones, Dr. Kiran.P, Dr.satheesan B
4. Impact on laryngectomy and tracheostomy free survival in laryngopharyngeal cancer patients treated with different schedules of concurrent chemoradiation Dr.Geetha.M, Dr.Tapesh Bhattachayya, Dr.V inin.N.V, Dr.Joneetha Jones, Dr. Greeshma.K.E, Dr.Aruna.S.R, Silpa Ajaykumar, Suja.C.A,Resmi.K.Bharathan.
5. Out of field photon dose measurement for VMAT Head and neck Cancer using 2D array. Silpa Ajaykumar
6. Simultaneously Integrated boost versus sequential VMAT treatment plans for head and neck cancers-Dosimetric study. Suja. C.A
7. Dosimetric dependence of volumetric modulated archtherapy of head and neck cancers on collimator angle, Resmi.K. Bharathan

STAFF

| Sl. No | Name | Designation |
|--------|------------------------------|--|
| 1 | Dr. Geetha.M | Associate Professor |
| 2 | Dr.Vinin.N.V | Assistant Professor |
| 3 | Dr.Joneetha Jones | Assistant Professor |
| 4 | Dr.Greeshma.K.E | Assistant Professor |
| 5 | Dr. . Sanudev Sadanandan V P | Assistant Professor |
| 6 | Dr. Kiran P | Assistant Professor |
| 7 | Dr. Shoaib Nawas | Assistant Professor |
| 8 | Dr. Arun S R | Senior Resident |
| 9 | Dr.Syamkumar S A | Assistant Professor in Radiation Physics |
| 10 | Mrs. Silpa Ajaykumar | 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 Arun Kumar.E.S | Dosimetrist |
| 15 | Mrs.SrijiSoman | Technician |
| 16 | Mrs.Rijisha | Technician |
| 17 | Mr.Nijeesh.P.T | Technician |
| 18 | Mr.RejinishKumar.O.A | Technician |
| 19 | Mr.Gibesh.K.P | Technician |
| 20 | Mrs. Dhanya.V | Technician |
| 21 | Mrs.Beena.P.K | Technician |
| 22 | Mr. Harshal | Technician |
| 23 | Mr.Sandeep | Attender/Mould Room Assistant |
| 24 | Mr. Sujith | Attender |

DEPARTMENT OF IMAGEOLOGY



Dr Satheesh Babu
Assistant Professor

| | |
|------------------|---------------------|
| Dr Satheesh Babu | Assistant Professor |
| Dr Sarath K E | Lecturer |

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. The department of Imageology has seen a tremendous increase in the number of diagnostic imaging and interventions performed in the last year.

ACTIVITIES AND ACHIEVEMENTS

1. Developed protocols for CT examination of different organ cancers. This has increased the throughput with very minimal technical and manual error. CT guided procedures like FNACs, biopsies, aspiration, pigtail insertion and RFA has become routine part of the practice . Angiograms and multi phase studies are done routinely adding to better quality diagnostic services to the clinicians. Statistics are given below.
2. MRI which completed its installation in Jan 2013 , saw a steady increase in the number

- of cases and its statistics is given below. Implemented standard protocols for Ca tongue, Ca rectum, MR mammogram, MR angiogram and whole body imaging.MR guided RT planning protocols were developed with the help of department of Radiation Oncology.
3. Installed Kerala's first Breast tomosynthesis machine . Doctors and female technicians in the department were trained by Hologic engineers from Belgium on image acquisition and breast interventions. Breast interventions include stereotactic biopsy, wire localization and vaccum assisted biopsy. Following installation

, more than 7000 3D mammogram has been done. Images are of excellent quality helping us in detecting lesion in very early stage. Difficult cases were complimented by MR mammogram done using 16 channel HDxT 1.5 T MRI machine. Suspicious non palpable lesions were biopsied by either stereotactic technique or by wire localizations. Number of wire localizations has also increased in recent times with nearly 20 % positivity rate. Community screening mammogram data was presented in ISRT national conference by our technologist.

4. Towards the end of August 2013, we acquired Starbust radiofrequency ablation system. RFA is a minimally invasive procedure in which a thin needle electrode is inserted into an unresectable liver lesion under ultrasound or CT guidance. Electrical energy is delivered through the electrode to the lesion which produces intense vibrations within the cells, killing the cells when lethal temperature is reached. Number for patients referred for minimally invasive liver interventions has seen a steady rise with more references coming from outside hospitals.
5. In December 2013, we acquired Maxio Inter-

ventional Radiology Assistance platform from Perfint Healthcare Ltd. It helps to place biopsy or RFA needle in difficult to assess areas with less effort. With one planning CT, it is possible to target a lesion in anatomically inaccessible area with less radiation , less trauma due to repeated needle placement and greater accuracy . Soon after its installation we have done one RFA and few biopsies. Data and an e poster was presented in 68 th Annual Conference of IRIA conducted in Kochi from 29 th Jan to 2nd February, 2015. Robotic procedures are gaining popularity due to its accuracy and minimal complication rate.

6. Department faculty is also involved in conducting classes and internal assessment for 1st, 2nd and 3rd year BSc MRT students. Nearly 300 hours are dedicated for classes. Regular teaching session is also conducted for head and neck fellows and BSc MRT interns.
7. Zeilm C arm system is at present used for swallow studies and urological and orthopaedic oncological surgeries. There has been steady increase in the number of VFS performed in the department.

PATIENT SERVICES

| Investigations | Number |
|-----------------------|--------|
| No.of X rays | 4535 |
| USG | 1012 |
| Mammogram | 1599 |
| CT | 4789 |
| MRI full study | 1401 |
| MR RT planning | 155 |
| MRI screening studies | 339 |
| USG guided biopsy | 63 |
| USG guided FNAC | 61 |
| USG guided aspiration | 23 |

| | |
|--------------------------------|-----|
| USG guided wire localization | 40 |
| USG guided pigtail insertion | 5 |
| CT guided FNAC/Biopsies | 326 |
| CT guided pigtail | 5 |
| Stereotactic wire localization | 2 |
| Robot guided RFA | 9 |
| Robot guided FNAC/biopsy | 22 |
| Barium studies | 55 |
| Videofluoroscopy | 95 |
| C arm procedures | 4 |

PUBLICATIONS

1. Nair CK, Bhattacharjee A, Raghavan V, Babu S, Balasubramanian S. SC. Thromb Res[internet], Elsevier B.V; 2015; Available from:<http://dx.doi.org/10.1016/j.thromres.2015.09.0>

CONFERENCES/SEMINAR/WORKSHOP

- Has undergone training in Basic Life Support and Advanced Cardiovascular Life Support programme of American Heart Association conducted by Indian Institute of Emergency Medical Services, Thalassery

in MCC on July 10th to July 12th ,2015

- Has participated in ICH-GCP training conducted in MCC on 8th August, 2015
- Gave a presentation on CT and MRI of head and neck region : Technical aspects and anatomy in the CME conducted by MCC on head and neck cancer on 06/09/2015
- Gave a talk on “Mammography – An introduction to nurses” in CNE on Early detection of cancer- Challenges, conducted by MCC on 13/12/2015
- Was invited as faculty in Amrita Head and Neck Allied Specialities Meet 2016, held at Amrita Institute of Medical Sciences on 5,6 and 7th of February 2016. Gave lecture on two topics – Basics of CT and PET CT and Radiology of skull base and paranasal sinus tumours
- Has chaired a session on mammogram in

KIRAN 2016, 34th Annual Conference of Kerala State Chapter held at Chamber of commerce , Kannur on 19th and 20th , March 2016

RESEARCH PROGRAMS

Ongoing projects in MCC

- Retrospective audit of 3D mammogram detected clinically non palpable BIRADS 3,4 and 5 breast lesion.

Completed projects in MCC

- Audit of community based mammographic screening from a tertiary cancer center
- Signal intensity ratio cut off in inphase/opposed phase imaging of spine, for the characterization of benign vs malignant lesions – A pilot study
- Perfusion MRI in the evaluation of brain lesions – An institutional experience

STAFF

| Sl. No | Name | Designation |
|--------|------------------|---------------------|
| 1 | Dr Satheesh Babu | Associate Professor |
| 2 | Dr Sarath K E | Lecturer |
| 3 | Sheena Pratap | Technician |
| 4 | Sindhu | Technician |
| 5 | Adarsh | Technician |
| 6 | Greeshma | Technician |
| 7 | Vini Raveendran | Technician |
| 8 | Fasna | Technician |
| 9 | Rashid M | Technician |
| 10 | Muhammed Irshad | Technician |
| 11 | Nimmya P | Technician |
| 12 | Shamna P | EDP Assistant |



DEPARTMENT OF CLINICAL HAEMATOLOGY & MEDICAL ONCOLOGY



Dr Chandran K Nair
Associate Professor & HOD

| | |
|-------------------------|-----------------------------------|
| Dr Chandran K Nair | Associate Professor & H.O.D |
| Dr Praveen Kumar Shenoy | Senior lecturer, Medical oncology |
| Dr Manu Prasad | Senior lecturer, Medical oncology |
| Dr Vineetha | Assistant Professor, Pediatrics |
| Dr Jithin TK | Assistant Professor, Pediatrics |
| Dr Amith Sreedharan | Assistant Professor, Pulmonology |
| Dr Sumi | Lecturer, Medical Oncology |
| Dr Anju R Kurupp | Lecturer, Medical Oncology |

PATIENT SERVICES

| O.P.D | |
|--|-------------|
| Total attendance in Hematology OPD | 7996 |
| New Cases in Hematology OPD: | 624 |
| Hematopoietic Stem cell transplantation: | |
| Total attendance in Medical Oncology(solid tumors) OPD | 12916 |
| New cases in Medical oncology OPD | 352 NMC: 70 |
| Total attendance in Pulmonology OPD: | 3135 |
| I.P consultations –Pulmonology: | |
| Procedures done (O.P + I.P): | |
| Bone Marrow aspiration/biopsy | 356 |
| Lumbar puncture with Intrathecal drug administration | 245 |
| Bronchoscopy | 81 |
| Endobronchial biopsy | 12 |
| Bronchoalveolar lavage | 22 |
| ICD insertion | 9 |
| Pleural tap | 139 |
| Pleurodesis | 2 |
| Pulmonary function test | 170 |

| Intensive Chemotherapy administered in Clinical Hematology (I.P):- | |
|---|---------------|
| 7+3 Induction Chemotherapy | 20 |
| AML BFM 98 Induction | 2 |
| FLAG salvage chemo | 5 |
| High dose Cytarabine | 21 |
| AML BFM 98 Consolidation | 8 |
| FCR | 7 |
| ALL Induction (Adult) | 16 |
| ALL Induction (Pediatrics) | 15 |
| ALL REZ BFM 85 relapse protocol | 10 |
| High dose MTX | 52 |
| HyperCVAD | 12 |
| APML Induction | 6 |
| BMT unit statistics: | |
| Allogenic HSCT | 5 (Haplo = 2) |
| Autologous HSCT | 11 |

PUBLICATIONS

- Chandran K. Nair, Atanu Bhattacharjee, Vineetha Raghavan, Satheesh Babu, Satheesan Balasubramanian Impact of thrombosis on standard treatment in solid tumors Accepted for publication in Thrombosis Research.

ACTIVITIES & ACHIEVEMENTS

Classes for nurses:

- Steroids in hematological malignancies- (Dr Vineetha)
- Cytarabine in treatment of AML – (Dr CKN)
- “Vinca alkaloids” by Dr Vineetha on 5th and 19th August.
- “Nitrogen mustards” by Dr CKN on 13th and 26th August.
- “Thiopurines” by Dr Vineetha on 17th and 30th September.
- “Melfhelan” by Dr CKN on 9th and 21st October.
- “L-asparaginase” by Dr Vineetha on 15th and 29th October
- “AML-overview” by Dr CKN on 14th and 28th Jan
- “ALL-overview” by Dr Vineetha on 21st Jan
- Dr CKN took class on “Hematopoietic stem cell transplantation –overview” for MSc Nursing

students

Combined Academic session:

Febrile neutropenia-management- Dr Vineetha

- Topic presentation by Dr Chandran K Nair on “Cancer genetics and its impact on hematological malignancies” for academic staff on 25th August
- Topic presentation by Dr Hari on “Electrolyte abnormalities”
- “Systematic approach to assessment of sick child and Management of shock” by Dr Vineetha
- Dr CKN on “key studies in ASH MEETING 2015”

Unit topic presentations

- Topic presentation by Dr Mohandoss on “Approach to Autoimmune Hemolytic Anemia” on 29th September
- Topic presentation by Dr Harikrishnan on “Approach to Anemia”
- Topic presentation in unit by Dr Shimna on “Approach to Thrombocytopenia”
- Topic presentation in Combined Academics session by Dr Shimna on “Tumor lysis syndrome”
- Class for junior residents by Dr Vineetha on “Febrile neutropenia”
- Class for junior residents by Dr CKN on “ Acute leukemia-treatment overview”

- Class for Junior residents by Dr Vineetha on “Pediatric ALL”
- Topic presentation by Dr Arun (Junior resident) on the topic “Diagnosis of Myeloma” on 25th Jan
- Topic presentation by Dr Fawas (Junior resident) on the topic “Treatment of Myeloma” on 25th January.
- Topic presentation by Dr Arun (Junior resident) on the topic “Approach to Shock”
- Topic presentation by Dr Fawas (Junior resident) on the topic “Approach to respiratory distress”
- Topic presentation for junior residents by Dr Vineetha on the topic “Febrile neutropenia”
- Topic presentation for junior residents by Dr Mohandoss on the topic “AIHA”
- Topic presentation for junior residents by Dr Mohandoss on the topic “TRANSFUSION RE-ACTIONS”
- 18th,19th April attended by Dr Vinin NV and Dr Joneetha in April 2015
- Continuing Nursing Education programme on Leukemia (HAIMA 2015) conducted on 3rd May at Seminar Hall , MCC by Department of Nursing, MCC in conjunction with Dept of CHMOG,MCC
- Dr CKN and Dr Vineetha participated in the CNE as Faculty
- Dr Amith attended Pulmocon 2015 on May 8th,9th,10th
- Dr Amith Sreedharan and Dr Vineetha Raghavan attended PALS provider course at IIEMS,Kannur on 19th and 20th August.
- Dr CKN attended ASCO submeeting as panelist in a panel discussion at Hyderabad on “Thrombosis in Cancer”.
- Dr CKN participated as faculty in lymphoma update at Calicut and gave a lecture on “Newer molecules in NHL”
- Dr Amith Sreedharan attended ACLS Instructor course at IIEMS,Kannur on 12th,13th September.

Training programmes:

- Dr Amal Abraham (Junior Resident, department of Psychiatry, KMCH, Anjarakkandy) was posted for two weeks in the department in April 2015 and participated in research.
- Dr Zoheb Raj –junior resident, department of psychiatry, KMCH,Anjarakkandy was posted in the unit from Oct 1st to Oct 15th
- Dr Harikrishnan and Dr.Shimna –junior residents, department of Medicine, ACME, Pariyaram were posted in the unit from 16th October 2015 to 15th November 2015
- Dr Arun and Dr Fawas- junior residents, department of Medicine, ACME, Pariyaram were posted in the unit from 16th January 2016 to 15th February 2016
- Dr Vineetha Raghavan attended MTH Criticare update (Sepsis CME) on 12th and 13th September as delegate.
- Dr CKN participated as panelist in panel discussion on CML on world CML day at Calicut (on 18th September)
- Dr CKN attended Hematocon (IAP-pediatric hemato-oncology chapter State conference) at Kochi on 20th September as faculty. Delivered lecture on “ITP in children”
- Dr Vineetha and Dr Amith Sreedharan attended “Mini respire”- a workshop cum CME on pediatric respiratory illnesses organized by IAP Thalassery on 20th September.
- Dr CKN attended workshop in molecular pathology (genetics workshop) on 25th,26th and 27th September at MCC as delegate.

Other activities:

Organized children’s day celebrations at MCC on Nov 14th for children who have completed treatment or are currently on treatment at MCC.

CONFERENCES/SEMINAR/WORKSHOP :

- AROI Kerala chapter state conference on
- Dr CKN attended HEMATOCON 2015 at Bangalore in Nov 2015 as delegate and presented

a poster on “Impact of thrombosis on standard treatment in solid tumors “

- Dr CKN attended Transfusion Medicine CME at MCC, Thalassery on 1st Nov 2015 as faculty and presented the topic “ Transfusion support in hematological malignancies”
- Dr Vineetha attended Transfusion Medicine CME at MCC, Thalassery on 1st Nov 2015 as delegate.
- Dr Vineetha attended PHOCON 2015 at Pune in Nov 2015 as delegate and presented the following posters:
- An Audit of Febrile Neutropenia in children with Acute leukemia treated at a tertiary Cancer Centre in South India
- Hemophagocytic lymphohistiocytosis in a child with ALL
- Dr CKN attended ASH 2015 meeting at Florida as delegate.
- Dr CKN attended the meeting Best of ASH 2015 at Hyderabad as faculty
- Dr CKN presented the topic “Myeloma” in Kannur ortho club on 15th Jan 2015
- Dr CKN attended Coagulation workshop at Jubilee Mission Medical College ,Thrissur as fac-

ulty and presented the topic “Platelet function disorders”

- Dr CKN attended Indian Stem Cell Transplant Registry meeting in Vellore

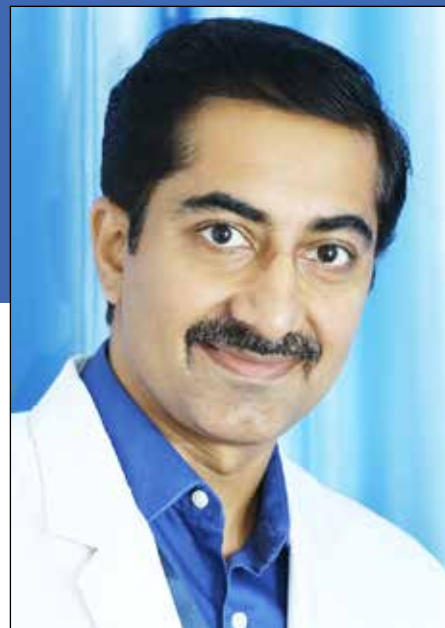
RESEARCH PROGRAMS

- profile of DVT in Ca patients treated at MCC
- Nontransplant Treatment Outcomes with Generic Novel Agents in Newly Diagnosed Multiple Myeloma Patients Chandran K Nair , Vineetha Raghavan , Atanu Bhattacharjee , Satheesh Babu , Sangeetha Nayanar
- Anxiety, Depression, Somatic Symptoms and Fear of Recurrence in Multiple Myeloma Survivors: A Institution Based Cross Sectional Study Sajeev Kumar PB , Chandran K Nair , Vineetha Raghavan , Zoheib Raj
- Quality of life and need assessment among Multiple Myeloma Survivors: A Institution Based Cross Sectional Study Sajeev Kumar PB , Chandran K Nair, Vineetha Raghavan, Zoheib Raj
- An Audit of Febrile Neutropenia in children with Acute leukemia treated at a tertiary Cancer Centre in South India. Vineetha Raghavan, Chandran K Nair, Amith Sreedharan, Guffran Ahammed, Sajini Samuel, Satheesh Babu, Sangeetha Nayanar

STAFF

| Name | Designation |
|-------------------------|-----------------------------------|
| Dr Chandran K Nair | Associate Professor and H.O.D |
| Dr Praveen Kumar Shenoy | Senior lecturer, Medical oncology |
| Dr Manu Prasad | Senior lecturer, Medical oncology |
| Dr Vineetha | Assistant Professor, Pediatrics |
| Dr Jithin TK | Assistant Professor, Pediatrics |
| Dr Amith Sreedharan | Assistant Professor, Pulmonology |
| Dr Sumi | Lecturer, Medical Oncology |
| Dr Anju R Kurupp | Lecturer, Medical Oncology |

DEPARTMENT OF SURGICAL ONCOLOGY



Dr. Sajith Babu T.P.
Associate Professor

| | |
|---------------------------------|----------------------|
| Dr Satheesan B | Professor & Director |
| Dr. Syam Vikram | Associate Professor |
| Dr Sajith Babu TP | Associate Professor |
| Dr Sampada Dessai | Assistant Professor |
| Dr Shiva Kumar | Assistant Professor |
| Dr Nizamudheen (on study leave) | Assistant Professor |

The department of Surgical Oncology had a fruitful year during the period of April 2015 to March 2016. The academics of the department was strengthened. With the addition of new fellowship in Surgical Oncology and Gynaecologic oncology, the trainees in the department increased. This also helped in improving the academic milieu. Daily academics and presentation, regular grand rounds with discussions on Saturdays etc were the new additions.

For easy management the department was divided into three divisions. This includes: Head and neck division (HN), Gastrointestinal, Urology and ex-

tremities division (GE) and Gynaec, Breast division (GB). Plans for further strengthening the equipment and infrastructure in the department were also made. These plans are underway.

Starting of the department of anesthesiology under the permanent anesthesiologist and separating the staffs in OT and surgical ICU under this was a major change that happened in this year. All the support and efforts were made to strengthen the critical care in the hospital. New protocols were introduced and new management algorithms were made.

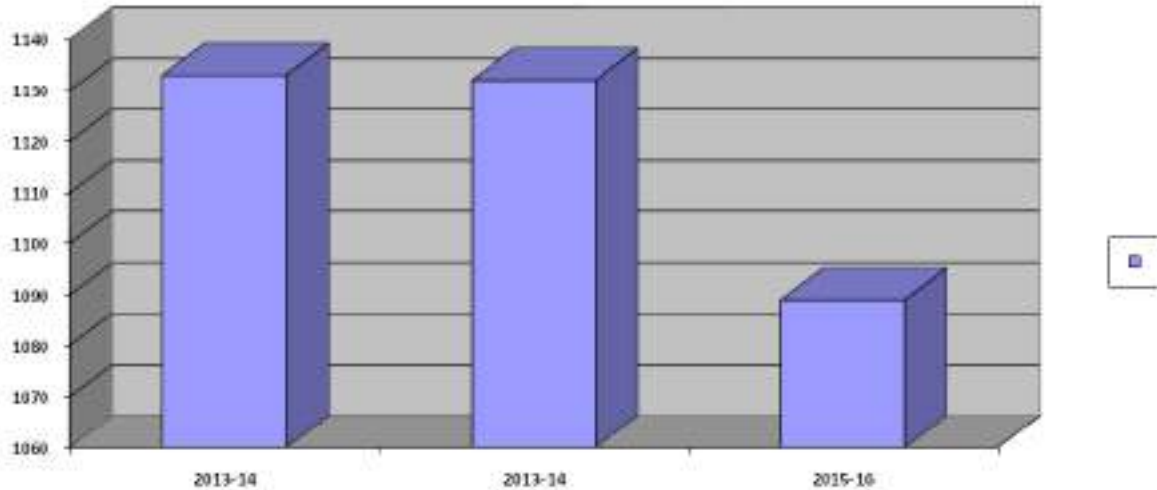
ACTIVITIES & ACHIEVEMENTS

PATIENT SERVICE:

- Total Number of Major Surgeries Performed: 1089

| Site | Site | Number |
|------|---------------------------|--------|
| 1. | Head and Neck | 384 |
| 2. | Breast | 318 |
| 3. | GIT+ Gynecology + Urology | 150 |
| 4. | Urology | 46 |

| | | |
|----|--------------------|-----|
| 5. | Gynecology | 130 |
| 6. | Bone & Soft tissue | 56 |
| 7. | Thoracic | 04 |
| 8. | Neurosurgery | 01 |



2. Total Number of patients seen in OPD: 36702

| Site | Site | Number |
|------|-----------------|--------|
| 1. | New Patients | 2938 |
| 2. | NMC Patients | 1338 |
| 3. | Review Patients | 27391 |
| | TOTAL | 31667 |

3. Minor Surgeries done:

| Site | Site | Number |
|------|--------------|--------|
| 1 | Tracheostomy | 25 |
| 2 | Biopsy | 198 |
| 3 | Orchidectomy | 18 |
| 4 | Flap | 38 |
| 5 | Debridement | 15 |

4. Total number of endoscopies done

| Site | Site | Number |
|------|--------------|--------|
| 1 | DLDP | 1152 |
| 2 | OGD | 535 |
| 3 | Bronchoscopy | 62 |
| 4 | Colonoscopy | 242 |
| | Total | 1992 |

PUBLICATIONS

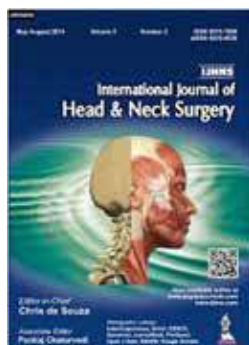
1. Mathai A, Balasubramanian S, Babu S. Oral Commissure Defect Reconstruction with Modified Bi-flanged Submental Artery Island Flap. *Int J Head Neck Surg* 2015;6(1):38-40.
2. S Thiagarajan, TPS Babu, S Chakraborty, VM Patil, A Bhattacharjee, S Balasubramanian Head and Neck cancer in geriatric patients: Analysis of the pattern of care given at a tertiary cancer care centre., *Indian Journal of Cancer* DOI:10.4103/0019-509X.176734
3. Nayanar, Sangeetha K, Shiva Kumar T, M K Aswathy, Sajith Babu S, and A Sithara. "Case Report Eccrine Porocarcinoma : A Challenging Case Series" *Scholars Journal of Applied Medical Sciences (SJAMS)* ISSN 2320-6691 (Online) *Sch. J. App. Med. Sci.*, 2016; 4(3E):1003-1007

CONFERENCES/SEMINAR/

WORKSHOP

Conferences Conducted

1. NUTRIC 2016- continuing nutrition education programme on nutrition of critically ill patients on 28th Feb 2016.
2. Essentials of stoma care” along with dept of palliative care & Nursing.



3. KASO meet- Second peripheral meet of Kerala Association of Surgical Oncologist in Oct 2015
Overview of Gynaecologic Cancers and Recent Advances

Conferences presentations:

- i. Poster presentation on “ Oncological safety of submental artery island flap in defects after oral cancer surgery” by Dr. Sajith Babu, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- ii. Poster presentation on “ Visual correlation of intraoperative nodal gross finding with histopathology in No , N1 neck in head and neck cancer – a prospective study” by Dr. Sajith Babu, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- iii. Poster presentation on “ Assessment of the morphology tumour front in tongue cancer using MRI and its surgical implications ” by Dr. Hamsa Nandini, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- iv. Poster presentation on “ Use of local flaps in oral cancer reconstruction in the era of free flaps” by Dr. Shivakumar, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- v. Poster presentation on “ Implication of soft fac-

tors in oral cancers” by Dr. Shivakumar, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.

- vi. Poster presentation on “ Is chemoradiation indicated in patients with multiple nodes without extracapsular extension in oral cancer” by Dr. Atul Singh, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- vii. Dr. Adarsh presented a paper on role of surgery in carcinoma cervix patients – audit from tertiary cancer centre at gynaec oncology conference at Delhi.
- viii) Dr. Shamna Mohammed presented E Poster on “Feasibility of sentinel node biopsy in breast cancers in rural setup” at annual meet of IASO.
- ix) Dr. Shamna Mohammed presented at the free paper session on “Initial experience with intra-operative extracorporeal autogenous irradiated bone grafts for functional limb salvage surgery in extremity osteosarcoma”.

Training :

- i. Trained 34 students during this period who had come for posting in the department.
- ii. Conducted training programme , KAHANI- Know About Head And Neck cancer Initiative, a comprehensive training programme for post-graduate students for a week from 22/6/15 to 26/6/15. Two candidates participated in the programme.
- iii. Conducted KAHANI training to a doctor from Hyderabad

AWARDS

- a. Dr. Atul Singh got selected for travelling fellowship from Foundation of Head and Neck Oncologists of India, for two months.
- b. Second prize in Poster presentation on “ Implication of soft factors in oral cancers” by Dr. Shivakumar, at 15th National conference of FHNO held at Nagpur on 11-13th Sept 2015.
- c. Dr. Shamna Mohammed was among first 15 winners of the E Poster session & awarded a prize money of INR 5000/= by IASO for the poster presentation “Feasibility of sentinel node biopsy in breast cancers in rural setup”.
- d. Dr. Shamna Mohammed was among first 15

winners of the Free paper session & awarded a prize money of INR 5000/= by IASO for the paper presentation on “Initial experience with intraoperative extracorporeal autogenous irradiated bone grafts for functional limb salvage surgery in extremity osteosarcoma”.

2. Audit of endometrial cancers- Dr. Sampada.D
3. Audit of ovarian cancers- Dr. Sampada.D
4. Predictive value of ACCI in oncological patients undergoing pelvic surgeries - Dr. Sampada.D
5. Retrospective analysis of cancer cervix patients treated with surgery – Dr. Adarsh D
6. Prospective study of ayurvedic medicine to prevent radiation induced mucositis- Dr Sajith

RESEARCH PROGRAMS

Ongoing projects

1. Retrospective survival analysis of head and neck cancer patients- Dr. Sajith

DIVISION OF REHABILITATION PHYSIOTHERAPY



Smt. Roopa
Physiotherapist

CONFERENCES & PROGRAMMES ATTENDED

1. Faculty in KAPS MEET at Guruvayoor –“ROLE OF PHYSIOTHERAPY IN ONCOLOGY-PRACTICAL APPROACH” on April 26, 2016.
2. Education class IRPC Medical Camp role of Oncology in Gedeatric Patients on August 19, 2015.
3. Participated as delegate in Continuous Nutrition Education Programme .
4. Participated in panel discussion ‘PINK RIBBON DAY” on October 2015.
5. Participated as a delegate in CNE -stoma care.

ARTICLE

1. Wrote Article in Arogyamasika Role Of Physiotherapy in Oncology, March 2016.

SPEECH AND SWALLOWING DIVISION



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 an out patient basis. Doing swallowing and speech rehabilitation

of head and neck cancer patients

Inpatient/Outpatient, Diagnostic and Therapeutic Services provided

1. Counseling- Pre and post treatment counseling
2. Swallowing assessment- Clinical, subjective

and objective

3. Swallowing therapy- Postures , maneuvers and ROM exercises
4. Speech therapy- Alaryngeal speech training
5. Voice therapy
6. Pure tone audiometry

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 planned treatment for speech,voice & swallow-

ing 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 af-

ected by the extent of resection, the type of reconstruction & the added affect of radiotherapy and chemotherapy.

- 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.

PUBLICATIONS

An article about Speech and swallowing function after tracheostomy and things to consider in a book namely "Arbudhavum swandhana paricharanavum" Published by state institute of languages, kerala, thrivananthapuram on November 2015.(author-MCC)

PATIENT SERVICES

| | |
|-----------------------|------|
| Speech consultation | 1025 |
| Swallowing therapy | 881 |
| Swallowing assessment | 404 |
| Speech therapy | 286 |
| Total | 2596 |
| videofluoroscopy | 90 |

CONFERENCES, SEMINAR, WORKSHOPS AND PRESENTATIONS

- Attended and actively participated in the 8th annual conference of Indian speech and hearing association- kerala state branch held on 12th & 13th September 2015, at sulthan bathery, wayanad, kerala.
- Attended and actively participated in the seminar on 'voice disorders & its management' held on 15th and 16th of may 2015 at Baby memorial Hospital , Calicut kerala.
- Attended a one day seminar on management of voice disorders and laryngectomy on 19th april,2015 organized by the department of speech language pathology, mar thoma college of special education, kasargod.
- Participated in amritha head and neck allied specialities meet- 2016 february held at Amritha

institute of medical sciences, kochi.

- Attended CME on swallowing disorders organized by the department of ENT, govt medical college Alappuzha on 24.05.2015.
- Participated in the continuing nutrition education programme Nutric 2016 held at Malabar Cancer centre on 28.02.2016.

RESEARCH PROGRAMMES

- Speech and swallowing outcomes in oral cancer patients undergoing segmental mandibulectomy with free fibula flap reconstruction in comparison to soft tissue(one among the co investigator)

FACILITIES AVAILABLE

1. Swallowing Therapy and speech therapy out pa-

- tient room and evaluation tools
2. Videofluoroscopy
 3. FEES
 4. Pure tone audiometry

Educational programmes and courses

Giving swallowing and speech rehabilitation training to BASLP students from Marthoma

college of speech and hearing –kasargode from 20/09/2012 onwards .

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

DIVISION OF CLINICAL NUTRITION AND DIETETICS



Ms. Reena C.
Dietitian

CONFERENCES & PROGRAMMES ATTENDED

1. Training given to staff of Asryaya foundation, kodiyaeri to start new Enteral feed unit for Oncology patients, who are undergoing treatment at Malabar Cancer Centre.
2. Given education class for Doctors at MCC in the Topic Nutrition in Cancer Patients on 23/07/2015
3. Organized and conducted EDU CAN- 2015 on 19/9/2015 for educating canteen staff.
4. Participated as a faculty in Continuous Nutrition Education Programme Diet In Colostomy on 16/1/16.
5. Participated and handled a topic Role of Diet in Cancer at Panunda, Thalassery , public awareness programme.
6. Participated in Jothydev's professional Education Forum Annual Diabetes Global Convention 2016 on August 20 and 21 st 2016.
7. Panel discussion Member for Pink ribbon day October 2016.
8. Participated in Panel discussion for a programme organized by Palliative department at Dharmadam resort for colostomy patients.
9. Awareness class Arogya paripalanam bhakshanathiloode on 28/November 2015 at koyyattil- public awareness programme
10. Organized and conducted a conference and pre conference work shop NUTRIC -2016 on 27 th February 2016.

11. Faculty for NUTRIC 2016 and handled the topic Diet in Diabetic Mellitus.
12. New course – Fellowship in Nutrition Oncology started at Clinical Nutrition Division under Surgical Oncology on 10/3/2016
13. Conducted a awareness class for canteen staff regarding Personnel and Food hygiene by Dr.Snany Surendran
14. Faculty for CNE organized by Oncology Nursing Department of MCC on growth and Nutrition in Paediatric on July 2016.
15. Awareness classes for ADS and CDS members at different panchayath
16. Awareness class at Mahe on Healthy Life styles

Training

- Fellowship programme started on 10/3/2016
- Trained Charitable trust staff regarding Enteral feed preparation
- Work shop demonstration for calculating nutrient requirement did for nurses and doctors
- 1 month training given to 12 students who had completed Assistant Dietician Trainee Course.

ARTICLE

1. Wrote Article in Arogyamasika *NON VEG COOKING* September 2016
2. Wrote Article *DIET IN KIDNEY STONE* in Arogya Masika on November 2016

CONFERENCE/EDUCATION PROGRAMME ORGANIZED

1. Organized & conducted an education programme in Nutrition NUTRIC-2016- on 28th February 2016 at Malabar Cancer Centre.
2. Organized and conducted a education programme for canteen staff EDU- CAN 2016.
3. Organized a awareness class for Canteen Staff regarding personnel and food hygiene.



Demonstration of free flap surgery for oral cavity cancer



STAFF

| | Name | Designation |
|----|-----------------------|-------------------------------------|
| 1 | Dr Satheesan B | Professor, Director |
| 2 | Dr Sajith Babu TP | Associate Professor |
| 4 | Dr Sampada Desai | Associate Professor |
| 5 | Dr Shiva Kumar | Assistant Professor (Till Dec 2015) |
| 6 | Dr. Adarsh Darmarajan | Assistant Professor |
| 7 | Dr. Ashsish Bens | Assistant Professor |
| 8 | Dr. Dipin J | Senior Lecturer |
| 9 | Dr Nizamudheen | Lecturer |
| 10 | Mrs Reena | Dietician |
| 11 | Mrs Roopa | Physiotherapist |
| 12 | Mr Aneeth | Speech and swallowing Therapist |
| 13 | Mr. Krishnakumar | OT Technician |
| 14 | Mr. Bipin | OT Technician |
| 15 | Mrs. Reshma | OT Technician |
| 16 | Mr. Mayan | Dialysis Technician |

DEPARTMENT OF CLINICAL LABORATORY SERVICES AND TRANSLATIONAL RESEARCH



Dr.Sangeetha.K.Nayanar
Professor & Head

| | |
|------------------------|---------------------|
| Dr.Sangeetha.K.Nayanar | Professor & Head |
| Dr.Aswathi.k | Assistant Professor |
| Dr.Sithara Aravind | Assistant Professor |
| Dr.K J Philip | Assistant Professor |
| Dr.Noushad | Assistant Professor |
| Dr.Varadaraj P | Senior Resident |

The department has the following divisions,

1. Oncopathology Division
2. Biochemistry Division
3. Microbiology Division
4. Blood Bank and Transfusion Medicine Division
5. Genetics and Cytogenetics

Oncopathology Division

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 Histotechnologist, 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.

NEW EQUIPMENT ACQUIRED:

- Installation of new automated IHC stainer-

Leica Bond Max which enabled the special technique of immune histochemical staining to be done on a daily basis for 30 markers at a time and upto 60 in a day.

- Purchase of two new high end binocular microscopes LEICA 750 & 1000.

ACTIVITIES & ACHIEVEMENTS

- Completion of a project by the division of Cytopathology in collaboration with HTIC, Chennai and PGI, Chandigarh and the Department of Community Oncology, Malabar Cancer Centre, Thalassery on “Cervical smear screening by Colposcopy, Liquid based cytology and Conventional cytology. Participants from the Department
Dr. Sithara A---Assistant Professor
Mrs. Sabna Dev---Cytotechnologist
Mrs. Nimi G K ---Cytotechnologists
Mr. Shafeeque---Cytotechnician
- Completion of proceedings for purchase of new equipment namely, Grossing work station which will make specimen grossing more easier and reduce the side effects of formaldehyde exposure.
- Initiated steps to start Fellowship programmes in Oncopathology & Head & Neck Oncopathology for both MD.Pathology & MDS Oral Pathology candidates.

PATIENT SERVICES:

Clinical reports of Histology, Cytology & Camp cytology

| | | |
|---|-------------------|------|
| 1 | Biopsy | 2694 |
| 2 | FNAC | 875 |
| 3 | Fluid Cytology | 443 |
| 4 | Cervical Cytology | 277 |
| 5 | SOB | 1496 |
| 6 | SOC | 396 |
| 7 | PS | 693 |
| 8 | BMA | 367 |

PUBLICATIONS

- Eccrine Porocarcinoma-a challenging case series-Dr.Sangeetha K N, Dr.Shivakumar-accepted in Scholars Medical Journal of case reports Feb 2016

- Endometrial stromal sarcoma-a clinico-pathological study—Dr.Vidhyadhar, Dr.Sithara A, Dr.Sangeetha K,Dr.Sampada,Dr.Satheesan B-sent to Journal of evolution of Medical & Dental Sciences-April 2016

CONFERENCES, SEMINARS, WORKSHOPS & PRESENTATIONS

- Clear cell carcinoma arising in an endometrial polyp in Uterus-case presented by Dr.Aswothy at International CME on Gynaec Pathology at Chennai in March 2015
- Spectrum of cervical changes on pap smears in high risk females of North Kerala- Nimi K G, Dr.Sithara A,Dr. Sangeetha- Gynaec conference,MCC,October 2015
- Frozen section evaluation in Head & Neck Oncosurgery-an initial experience in a tertiary cancer centre-Dr.Mridula K I, final year PG MDS. Oral Pathology,Dr.Aswothy K M, Dr.Sangeetha at APCON National conference in Dec at Kochi.
- Clinicopathological profile of endometrial stromal sarcomas(ESS)-4 year study in a tertiary cancer centre-Bhavadeep Kumar Reddy S- final year PG, Kannur Medical College,Anjarakkandy, Dr.Sithara A,Dr.Sangeetha K N- at APCON National conference in Dec at Kochi.
- A study of Frozen section assessment in the evaluation of axillary sentinel lymph node in breast cancer-a pilot study in tertiary cancer centre-Dr.Varadajaraj Perumal,Senior resident,MCC,Thalassery, Dr.Sangeetha K N, Dr.Satheesan B -at APCON National conference in Dec at Kochi & IAPM state chapter meeting at Thiruvananthapuram
- Spectrum of cervical changes on pap smears in high risk females of North Kerala- Nimi K G, Dr.Sithara A,Dr. Sangeetha,Dr.Neethu- Gynaec conference,MCC,October 2015.
- Myeloid proliferation as a paraneoplastic syndrome in Clear cell carcinoma of Ovary-Dr.--- First year PG at KMC,Anjarakkandy,Dr.Aswothy K,M at IAPM State chapter meeting Feb 2016,Thiruvananthapuram
- Cribriform Adenocarcinoma of minor salivary gland in retromolar trigone- Case presentation at IAPM Kerala State Chapter meeting Feb 2016-Dr.Sany Philip,2nd year Pg at

KMC,Anjarakkandy-at IAPM State chapter meeting Feb 2016,Thiruvananthapuram

CONFERENCES ATTENDED

- APCON National Pathology conference in December at Kochi-Dr.Sangeetha K Nayanar
- International CME on Lymphoma at RCC,Thiruvananthapuram in January 2016-Dr. Sangeetha K Nayanar & Dr. K J Philip
- IAPM Kerala State Chapter meeting Feb 2016-Dr. Varadaraj P

RESEARCH PROGRAMMES

- Molecular and immunohistochemical characterisation of Endometrial carcinoma-Dr.As-wathy K M, Dr.Deepak R(IRB approved,applied t DBT for funding)
- 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(pending IRB approval)(in collaboration with the Union for Tuberculosis & Lung diseases)

TRAINING PROGRAMMES

Training programmes for BSc.MLT final year students of government & private medical colleges and paramedical institutes of Kerala

Biochemistry Division

Clinical Lab offers laboratory services in clinical chemistry, hematology, coagulation, urinalysis, and specialized biomarkers like tumor & cardiac markers. Testing is performed round the clock using the validated equipments and results are issued with minimum turnaround time. We participate in EQAS program conducted by CMC, Vellore.

| Sl. No | NAME OF TESTS | TOTAL NUMBER OF TESTS PERFORMED |
|--------|------------------|---------------------------------|
| 1 | Biochemistry | 45,097 |
| 2 | Haematology | 39,361 |
| 3 | Blood Grouping | 4315 |
| 4 | Tumour Markers | 4380 |
| 5 | Urine Analysis | 2153 |
| 6 | Peripheral Smear | 798 |
| 7 | Virology Marker | 6815 |
| 8 | ABG Analysis | 585 |

ACTIVITIES AND ACHIEVEMENTS

The laboratory equipments were interfaced with Hospital Information System. Hence all lab results can be viewed online in eHosp software within the hospital.

PATIENT SERVICES:

The Biochemistry and Hematology division processed, analysed and reported 103504 tests in the reporting period. The detailed statistics is given below:

STAFF

| Name | Designation | |
|------|-------------|------------|
| 1 | Smt. Mini | Technician |
| 2 | Ms. Namitha | Technician |
| 3 | Mr. Aneesh | Technician |
| 4 | Mr. Gokul | Technician |

| | | |
|---|-------------|---------------|
| 5 | Ms. Jolsna | Technician |
| 6 | Smt. Dhanya | Technician |
| 7 | Ms. Ajisha | Technician |
| 8 | Mrs. Akila | Lab Assistant |

Microbiology Division

Dr. Sajani Samuel
Assistant Professor



The division of Microbiology at Malabar cancer Centre aims at providing accurate and reproducible results on clinical material within the shortest possible time. This has been achieved by round the clock laboratory services, reporting and use of state of the art equipment.

(A) Facilities

• Blood culture

Blood culture is done on Bactec 9050 BD- automated system for aerobic bacteria and fungi which indicate positivity from 3 hours onwards. Identification of most of the organism grown could be reported in about 4 – 6 hours, on this automated system. Thus organisms causing life threatening infections resulting in bacteraemia could not only be grown, but their identification & sensitivity would also be available in about 12- 13 hours time, which would help greatly in starting the specific antimicrobial therapy at the earliest.

• Conventional culture for aerobic bacteria, fungi and Parasites

Conventional culture for aerobic bacteria, fungi and parasite from clinical specimen other than blood is carried out on most appropriate media in controlled environment. Identification & sensitivity of bacteria is done by Phoneix 100 (BD automated system) and can be reported within 12- 13 hours on automated system, thus reducing the time of availability of report by almost days.

• Microbiological

Microbiological (bacterial, fungal, protozoan, parasitic and viral) diagnosis of human infections and infectious diseases on various specimens like pus, blood, urine, sputum, BAL, throat swabs, catheter tips, various fluids (pleural, peritoneal, CSF, ascitic fluid etc) and stool.

• Serological diagnosis

Immunology/ Serology: detection and assay (quantization) of

(a)Antigenic components of Microbial pathogens

(b) Antibody response to the infectious agents

• Molecular Testing

Transplant Associated Infections:

- CMV Quantitative Real time PCR
- EBV Quantitative Real Time PCR

Services offered by the department of Microbiology

- Gram stain of various specimens.
- AFB stain of various specimens.
- Iodine/ Wet Mount for Stool sample
- Blood Culture and sensitivity by Bactec 9050 automated system.
- Pus culture and sensitivity.
- Throat swab culture and sensitivity.
- Sputum culture and sensitivity.
- Urine for culture and sensitivity.
- Catheter tip for culture and sensitivity.
- Stool for culture and sensitivity.
- Various fluids (pleural, peritoneal, CSF, ascitic

fluid etc) for culture and sensitivity

- Fungal culture and sensitivity.
- Serological diagnosis.
- Molecular Testing
- Other rapid non- culture methods of pathogen detection such as Clostridium difficile toxin assay by ELISA & Immuno card test, Mantoux test etc.

Quality control (Q.C.) and quality assurance (Q.A)

- Quality control (Q.C.) and quality assurance (Q.A) are strictly implemented

ACTIVITIES & ACHIEVEMENTS

- 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
- Short term training program conducted on Clinical Microbiology
- A CME on HIC was Conducted for the In House staff in the Seminar Hall of MCC
- Diagnostic Virology Lab (PCR installed) was set up and made operational. A Study was completed on the 'Role of Diphtheroids in infections in Cancer Patients'.
- New tests and methods were introduced e.g: C. difficile Immuno card and ELISA test method.

PATIENT SERVICES:

Samples Handled: Total No. of Samples: 7,579

Samples Details

| S.No. | Sample Type | Sample number |
|-------|---|---------------|
| 1 | Urine | 1559 |
| 2 | Blood | 2131 |
| 3 | Respiratory (Sputum, throat swab, BAL) Pus (wound Swab/ swab/ dead tissues/ Exudates) | 1651 |
| 4 | AFB Staining | 497 |
| 5 | Gram Staining | 404 |
| 6 | Fungal culture | 105 |
| 7 | KOH Mount | 72 |
| 6 | Environmental Swabs | 1065 |
| 7 | Serology | 80 |
| 8 | Staff free investigation | 15 |

CONFERENCES/SEMINAR/WORKSHOP STAFF

| | Name | Designation |
|---|-------------------|---------------------|
| 1 | Dr. Gufran Ahmeed | Visiting Consultant |
| 2 | Dr. Sajani Samuel | Assistant Professor |
| 3 | Mrs. Ramitha | Lab Technician |
| 4 | Mrs.Siju | Lab Technician |
| 5 | Ms. Sinisha | Ward Assistant |



Blood Bank and Transfusion Medicine Division

Dr. Mohandoss
Assistant Professor



Ours is a modern blood bank with state of art facilities which caters to patients requiring blood transfusion in and around Kannur District. In addition to routine blood bank activities, blood bank supports bone marrow transplant program, facilities for HLA Typing, Flow Cytometry, Irradiation of blood. 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.

PATIENT SERVICES

- 4229 whole blood donations &
- 276 apheresis platelet donations were collected in our centre.
- We organized 11voluntary outdoor blood donation camps.

Total blood Components Issued were 8283 units (PRBC-3308; Platelets-3134; FFP-1459; Cryo-382units) and 476 apheresis platelet units.

CONFERENCES/SEMINAR/WORKSHOP

Workshop:

- The division organized one day hands on workshop on Flow cytometry for CD34 Enumeration and HLA typing by molecular methods on 31st Oct 2015. 13 delegates from various parts of South India attended the event.
- Dr. Mohandoss participated in BLS and ACLS workshop in MCC from 10.7.15 to 12.7.15
- Dr. Mohandoss attended NACO/NBTC training program for Medical Officers in SCTIMST, Trivandrum from 7.9.15 to 11.9.15
- Dr. Mohandoss attended workshop on programme on implementation of NABH Standards for blood bank in Manipal Hopsital, Bangalore organized by NABH, New Delhi from 6.11.15 to 8.11.15
- Mr. Shibin attended scientific program on Immunoematology/Wet workshop on antibody screening & identification organized by Bio-Rad Lab at Cochin on 18.12.15.

CME:

- The Division of Transfusion Medicine along with Indian Society of Blood Transfusion and Immunoematology (ISBTI) organized Kerala

Chapter CME on 1st Nov 2015. 70 delegates took part in the CME.

Conference Presentations

- Dr. Mohandoss- attended TRANSMEDCON – 4th Annual National Conference organized by Indian Society of Transfusion Medicine in Kolkata from 4th Dec to 6th Dec 2015 and presented
- Oral Presentation: Simplified Quality Control in CD 34 Enumeration of Leukapheresis product by Flow Cytometry
- Poster Presentation: Comparison of Autologous Plasma and Human Serum Albumin as cryoprotectant in Stem cell Cryopreservation. Its Clinical Impact

Presentation:

- Dr. Mohandoss delivered guest lecture on Universal Leukodepletion of Blood Components in Lake Shore Hospital, Ernakulam on 10.12.15

ACTIVITIES AND ACHIEVEMENTS

1. In view of World Blood Donors Day – Blood Bank organized drawing competition for our hospital patients and patient bystander on 13th June 2015.
2. For World Blood Donors Day, blood bank organized felicitation program for voluntary blood donors on 15th June 2015.
3. To minimize preventable blood transfusion reaction, the blood bank started preparing buffy coat depleted blood components using automated blood component extractor equipment for our hospital patients.
4. To prevent lethal blood transfusion reaction - transfusion associated graft versus host disease where mortality is 100%, blood bank started irradiating blood units using dedicated gamma irradiator instead of linear accelerator.
5. HLA typing for bone marrow transplantation was performed on a routine basis.
6. We received license for performing apheresis in blood bank.
7. Our blood bank continues to issue blood only in form of blood components (100%). No whole blood issued since 2010.



Division of Genetics and Cytogenetics

Dr. Deepak Roshan
Lecturer



Division of Genetics was established during October 2014 under the Dept of Clinical Services and Translational Research. Division is under process of development and establishment with an aim of molecular research and molecular diagnosis. The major research direction of the division for “bench to bedside” is to understand the genetic factors associated with

treatment outcome of cancer patients, such as drug resistance and drug toxicity, which will help in developing personalized therapy system. Molecular diagnosis in oncology is mainly focussed on the detection of mutation in genes, translocation expression of genes. Division is also involved in the HR development programmes by providing short-term training and dissertation works for BSc/MSc/MD/MDS students. In near future division will be initiating doctoral course in molecular oncology.

PATIENT SERVICES

| Sl No | Name | Number |
|-------|---|--------|
| 1 | Translocation analysis (qualitative) BCR-Abl | 53 |
| 2 | Translocation analysis (qualitative) PML-RARa | 28 |
| 3 | Translocation analysis (quantitative) BCR-Abl | 91 |
| 4 | Mutation Analysis JAK2 | 01 |

CONFERENCES/SEMINAR/WORKSHOP

- Hands on workshop in Basics in molecular Techniques in clinical perspective on September 25th to 27th 2015
- Hand on workshop in HLA typing on October 2015
- Poster : Frequency of BCR-Abl fusion transcript variants in CML patients from Northern Kerala Vincy Shyjesh, Snageetha K Nayanar, Chandran K Nair, Deepak Roshan VGNational Seminar “Recent Advances in Molecular Biology-2016”
- Invited Talk - Topic : Cancer Genetics: Bench to Bedside in the era of NGS Deepak Roshan VG, National Seminar “Recent Advances in Molecular Biology-2016”

RESEARCH PROGRAMMES

- 1) Molecular dissection of pathways altered by different fusion transcripts in CML
- 2) Deciphering the alteration/s in molecular network of oral pre-cancer and cancer cells by genetic landscaping

Grants and Schemes

Extramural

- 1) Funding Agency: KBC/KSCTSTE Got Kerala; Amount:- Rs 23, 47, 840; Duration:- 3years

Other Facilities available

- Cooling high speed centrifuge
- Ultra water purifier
- Semi-dry and wet blotting apparatus
- Manual sequencer
- Manual sequencer system

Up-Coming facility

- Cell culture facility
- Core Genomics Center
- Core proteomics Centre

Position Offered

1) MSc Project training

Duration: - 3 months and 6 months
Maximum intake: - 4 Nos

2) Post MSc Observation Training in molecular diagnosis

Duration: - 3 months and 6 months
Maximum intake: - 4 Nos



Real-time PCR



PCR

STAFF

| Name | Designation |
|-------------------|----------------|
| Dr. Deepak Roshan | Lecturer |
| Vincy Augustin | Lab Technician |

DEPARTMENT OF CANCER REGISTRY & EPIDEMIOLOGY



Dr. Saina Sunilkumar
Lecturer & HOD in charge

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

The department of cancer registry was established in 2011 for the systematic collection, storage, analysis, and interpretation and reporting of data on cancer patients. There are two main types of cancer registry: hospital-based Cancer Registry and population based cancer registries.

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. Although these data may be used for epidemiological purposes, these registries cannot provide measures of the occurrence of cancer in a defined population because it is not possible to define their catchment populations that is the populations from which all the cases arise. During this period the Department published the hospital based cancer registry report

for the year 2014 (Table 1)

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. Thus, the emphasis is on epidemiology and public health.

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" in 2013 and during the period the department analyzed this data for the years 2013 and 2014.

The department has the following divisions,

1. Cancer Registry Division

2. Medical Records Division
3. Health Information Technology Division
4. Clinical Research and Biostatistics Division

ACTIVITIES AND ACHIEVEMENTS

- Two sessions taken for the two day workshop Hypothesis Testing for Clinical Trials on 3rd

and 4th October 2015.

- Observed World Breast Cancer Awareness day “Pink Ribbon day” on 26th October 2015.
- Classes taken for the MEDIT course and prepared course study material.
- Observed World cancer day and conducted a Book Exhibition for patients and bystanders.

STATISTICS

Total number of cancers registered in 2013

| Males | | Females | | Sex Ratio | Total Cases |
|-------|------|---------|------|-----------|-------------|
| # | % | # | % | | |
| 2140 | 52.9 | 1902 | 47.1 | 112 | 4042 |

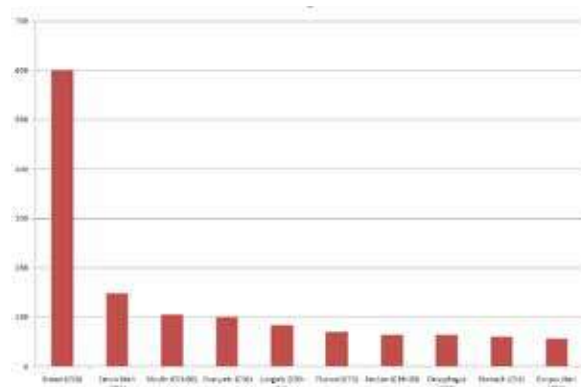
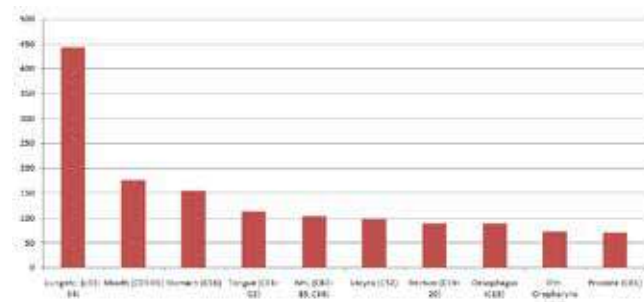
LEADING SITES OF CANCER AND MAGNITUDE

Relative Proportion (%) of Leading Sites of Cancer Males

| Rank | Sites (ICD-10) | # | % |
|------|-----------------------|------|--------|
| 1 | Lung etc. (c33-34) | 442 | 20.7 |
| 2 | Mouth (C03-06) | 175 | 8.2 |
| 3 | Stomach (C16) | 154 | 7.2 |
| 4 | Tongue (C01-02) | 112 | 5.2 |
| 5 | NHL (C82-85, C96) | 103 | 4.8 |
| 6 | Larynx (C32) | 97 | 4.5 |
| 7 | Rectum (C19-20) | 89 | 4.2 |
| 8 | Oesophagus (C15) | 88 | 4.1 |
| 9 | Oth. Oropharynx (C10) | 72 | 3.4 |
| 10 | Prostate (C61) | 70 | 3.3 |
| | All Sites | 2140 | 100.00 |

Leading site of cancers – Females

| Rank | Sites (ICD-10) | # | % |
|------|--------------------|------|--------|
| 1 | Breast (C50) | 600 | 31.5 |
| 2 | Cervix Uteri (C53) | 147 | 7.7 |
| 3 | Mouth (C03-06) | 104 | 5.5 |
| 4 | Ovary etc (C56) | 100 | 5.3 |
| 5 | Lung etc (C33-34) | 83 | 4.4 |
| 6 | Thyroid (C73) | 69 | 3.6 |
| 7 | Rectum (C19-20) | 64 | 3.3 |
| 8 | Oesophagus (C15) | 63 | 3.3 |
| 9 | Stomach (C16) | 60 | 3.2 |
| 10 | Corpus Uteri (C54) | 56 | 3.0 |
| | All Sites | 1902 | 100.00 |



CONFERENCE/SEMINAR/WORKSHOP

- Consolidated report of HBCR 2012-2014 presented in the work shop of Research Area Panel of NCDIR, NCRP on 16/02/2016 and published the same in the consolidated report of, NCRP, ICMR.
- Smt. Bindu attended the International conference on Statistics for Twenty First Century (ICSTC 2015) and presented a paper “Cure Rate Models Using Generalized Lambda Distribution.

PUBLICATION

- Published three Abhayam Newsletters for the year 2015.

- Published Hospital Based Cancer Registry Report for the year 2014.
- Published An article titled “Organization of Malabar Population Based Cancer Registry and Hospital Based Cancer Registry in a Tertiary Cancer Centre in Rural India” in Cancer Registry Abstract (CRAB) .

RESEARCH PROGRAMS

- Hospital Based Cancer Registry
- Malabar Population Based Cancer Registry
- Paterns of Care and Survival Studies
- Lifestyle and Cancer

GRANTS AND SCHEMES

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

| Sl.No. | Letter No. and Date | Amount |
|--------|--|--------------|
| 1 | NCDIR/NCRP/COU/HBCCR/778/2012/19 dated 31 March 2016 | 1,10,000.00 |
| | Total | 1,10,000.000 |

Medical Records Division

Sri. Jayadev G

Medical Records Officer



| | |
|------------------|---------------------------|
| Sri. Suraj Kumar | Medical Records Assistant |
| Smt. Suha P | Medical Records Attender |

Medical records division –When patient reports for revisit, files are being requested from the reception, medical records staff retrieves the files and dispatch it to reception. After days visit files are returned to medical records. Returned files are sorted, entered and filed in concerned racks by the staffs. Attaching chemo chart to the patient file is also done in medical records division. Discharge files are received after the billing process, case records are arranged in chronological order and the details are noted in facing sheet of each discharge case record.

Intimation of death to the municipality is being done through hospital KIOSK. New files are prepared from medical records and issued to registration department. Medical records department provides photocopy service to the patients and hospital purpose.

Medical records division has introduced file folders for the NMC file which helps in easy storage and retrieval NMC files. Expired files are arranged and are kept separately in slotted angle rack according to the hospital number.

Inactive files are located and moved to another area . Expired files are arranged yearwise and kept separately.

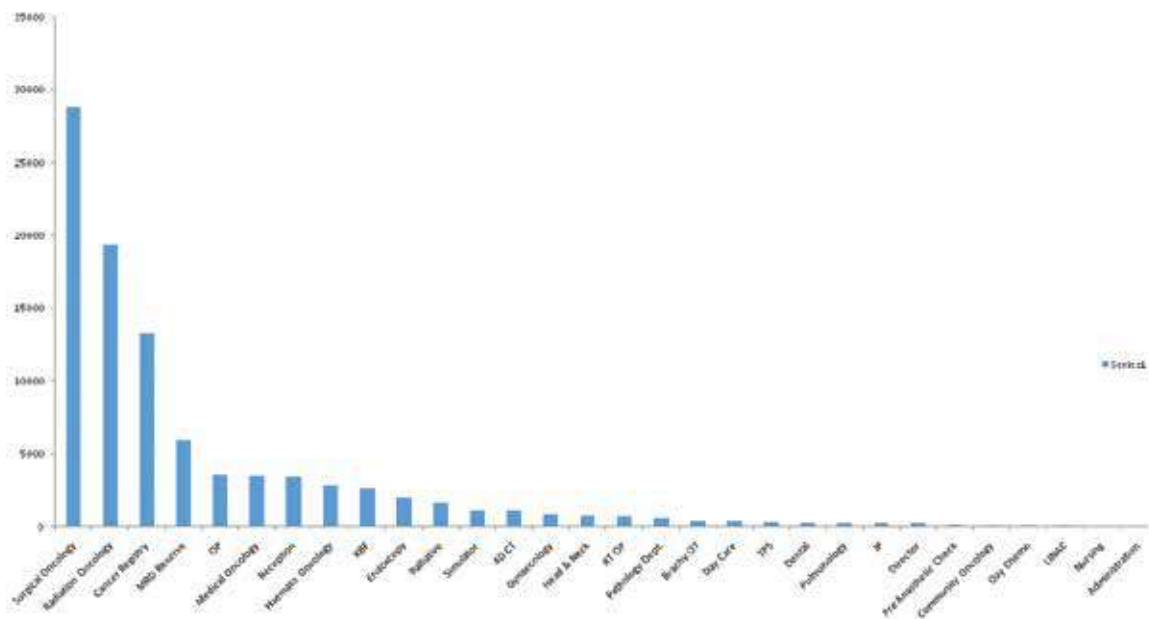
STATISTICS

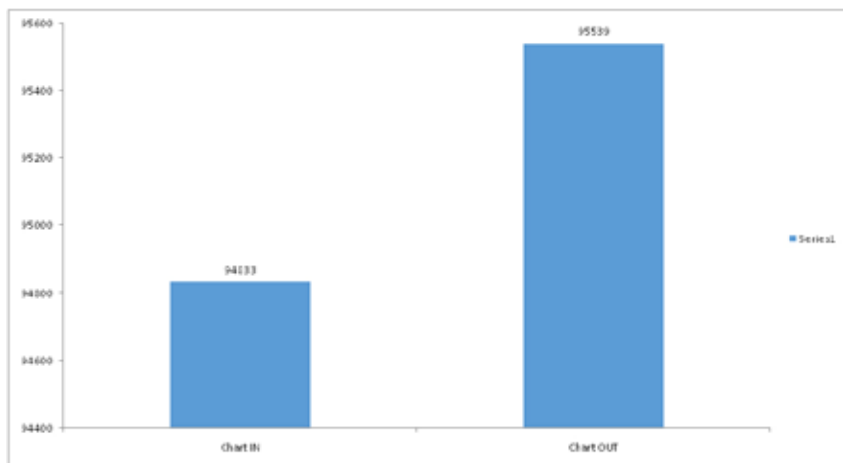
OUTGOING FILE DETAILS 2015-2016

| | | | | | |
|----|--------------------|-------|----|------------------------|-----|
| 1 | Surgical Oncology | 28844 | 19 | Day Care | 376 |
| 2 | Radiation Oncology | 19345 | 20 | TPS | 327 |
| 3 | Cancer Registry | 13319 | 21 | Dental | 315 |
| 4 | MRD Reserve | 5963 | 22 | Pulmonology | 314 |
| 5 | OP | 3606 | 23 | IP | 311 |
| 6 | Medical Oncology | 3500 | 24 | Director | 286 |
| 7 | Reception | 3434 | 25 | Pre Anasthetic Check | 163 |
| 8 | Haemato Oncology | 2856 | 26 | Community Oncology | 98 |
| 9 | KBF | 2602 | 27 | Day Chemo | 87 |
| 10 | Endoscopy | 2007 | 28 | LINAC | 83 |
| 11 | Palliative | 1670 | 29 | Nursing | 57 |
| 12 | Simulator | 1139 | 30 | Administration | 46 |
| 13 | 4D CT | 1138 | 31 | Multi Speciality Board | 45 |
| 14 | Gynaecology | 902 | 32 | OT | 42 |
| 15 | Head & Neck | 788 | 33 | Physiotherapy | 42 |
| 16 | RT OP | 730 | 34 | Speech Therapy | 41 |
| 17 | Pathology Dept. | 602 | 35 | CT Scan | 34 |
| 18 | Brachy OT | 427 | | | |

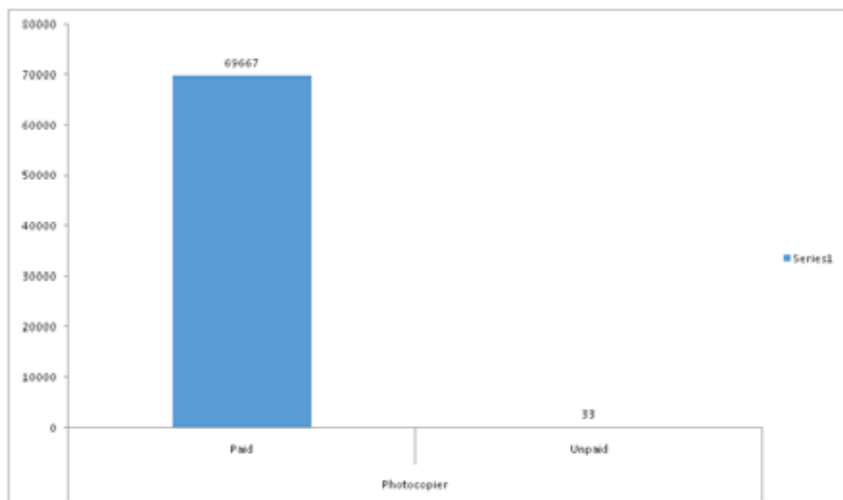
OUTGOING FILE DETAILS 2015-2016

| Chart movement 2015-2016 | |
|--------------------------|-------|
| Chart In | 94833 |
| Chart Out | 95539 |





PHOTOCOPIER



Total no. of outgoing files 95539
 Total no. of returned files 94833
 Total no. of death informed 188
 No. of paid copies taken 69667
 No. of free copies taken 33

Health Information Technology Division

Sri. Ranjith M K
 System Manager

| | |
|---------------|-----------------------|
| Smt. Bavina C | Junior System Analyst |
|---------------|-----------------------|



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 Centre

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. 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.

ACTIVITIES & ACHIEVEMENTS

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 infrastructure 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

The major activities of the division are as follows;

1. Implemented and administering Phase-I of e-Hospital Software, an Integrated Hospital Information and Management System of National Informatics Centre.
2. Research collaboration with C-DIT in the area of Health Information Technology
3. Implemented National Knowledge Network (NKN) connectivity at MCC.
4. Managing Kerala State wide Area Network connection (KSWAN) at MCC
5. Providing Computer Hardware, Network and Software Maintenance and support to all the departments at MCC
6. Started Online Registration System (www.ors.gov.in) in MCC. Malabar Cancer Centre, Thalassery is the first hospital from Kerala to provide online OPD registration using the ORS Portal.
7. Updating and Maintaining a dynamic website for MCC developed using open source in English and Malayalam Languages with the domain

www.mcc.kerala.gov.in

8. Implemented e-Procurement Mission Mode Project of Govt. of Kerala at MCC
 9. Designed and Developed e-Palliative Software in research collaboration with C-DIT and implemented successfully in association with Department of Palliative medicine and local palliative centers.
 10. Advanced Diploma in Health Information Technology Course (MEDIT) in Collaboration with C-DIT, Thiruvananthapuram.
 11. Laboratory equipments interfaced with e-Hospital Software. This may leads Automatic Laboratory Report Generation.
 12. Server and Database Administration, Management and Maintenance
 13. Implemented Malayalam Computing at MCC in association with Akshaya Project office, Kannur
 14. Managing Telemedicine facilities
 15. Online Examination: Implemented online examination facilities to recruitments on contract and project basis.
 16. Developed and implemented Canteen Billing and Management Software, Pay role/Salary Software, PBCR data entry software, etc. for MCC.
 17. Online Career Application: Online application software implemented and maintained for inviting application for the posts on contract and project basis.
 18. Providing Academic Project support for MCA, B.Tech, M.Sc. IT, M.Sc. Computer Science, BCA, B.Sc. Computer Science, B.Sc. IT Students.
 19. Managing Official E-mail to all Employees through Government of India E-mail Service.
 20. Implemented Two Smart Class rooms and a Computer Training Lab at MCC for Training, workshops and conferences.
 21. New structured network was implemented at MCC with Cat-6 cabling, 10/100/1000 switch and fiber backbone.
 22. Online Birth & Death Registration: Co-ordinated with Information Kerala Mission, online Death and Birth Registration Implemented at Medical Records Division.
 23. Fundamental Computer Training to all staff as part of Modernization.
 24. New server room was implemented at new IP Block.
- Support given for preparing Books, News letter, Brochures, banners and website for various seminars and workshops organized by MCC.

STATISTICS

The following hardware and network infrastructures are managed by the division

| Hardware: | | |
|-----------|--------------------|-----|
| 1) | Server Computer | 12 |
| 2) | Work stations | 31 |
| 3) | Desk top Computers | 185 |
| 4) | Laptop | 11 |
| 5) | Network Printer | 11 |
| 6) | Ink jet Printer | 08 |
| 7) | Dot matrix Printer | 12 |
| 8) | Laser Printer | 47 |
| 9) | Scanner | 12 |

| | | |
|-----|------------------------------------|----|
| 10) | UTM firewall | 01 |
| 11) | Switch (10/100/100) | 27 |
| 12) | Modems | 03 |
| 13) | LCD Projector | 09 |
| 14) | High Resolution Digital Visualiser | 02 |
| 15) | Over Head Projector | 01 |
| 16) | Wireless Interactive White Board | 02 |
| 17) | Barcode Printer | 16 |
| 18) | External DVD writer | 01 |
| 19) | Barcode Scanner | 20 |

B] Network Infrastructure:

- 1) National Knowledge Network (NKN) Dedicated internet connection
- 2) 2 BSNL Broad band Connection with static IP
- 3) 1 BSNL Internet connection (NNECT)
- 4) Kerala State wide Area Network connection (KSWAN)

- 5) Structured Cat-6 cabling (LAN) with 24 Layer Switches, 9 Racks

C] Security Surveillance System and Wi-Fi network.

- 1) Campus wide Wi-Fi connectivity and Security Surveillance System will implement soon.

Clinical Research and Biostatistics Division

| | |
|-------------------------|---------------------------|
| Sri. Subhradev Sen | Lecturer in Biostatistics |
| Dr. Atanu Bhattacharjee | Lecturer in Biostatistics |

CONFERENCES/SEMINAR/WORKSHOP

1. SURV-15

A two-day workshop on Survival Analysis was conducted in the centre during April 3-4, 2016. Around 35 participants from Different Institutions like St. Thomas College, Pala, Thalassery School of Nursing, Pariyaram Medical College, Thrissur Ayurveda College attended the programme. Prof. P G Sankaran of CUSAT, India, and Prof. Anil Mathew of Indian Society for Medical Statistics participated the programme as external faculty members.

2. ICH-GCP Training:

A day training programme on the recent guidelines and methods for "International Conference on Harmonisation-Good Clinical Practice" was conducted in the centre. MCC on August 8, 2015. Around 50 participants comprising fac-

ulty members of MCC and Ethics committee members attended the programme. Ms. Sonal Joshi, Quality Manager, Roche, Mumbai, came as speaker.

3. HTCT-15

October 3-4, 2015, A two day workshop on "Hypothesis Testing on Clinical Trials" were conducted. 30 Participants from Thalassery College of Nursing, St. Thomas College Pala, Kannur Medical College attended the programme. Prof. Dilip C Nath, Vice-Chancellor, Assam University, India, came as external speaker.

1. One faculty from the Division attended International conference and presented research paper in "9th Triennial International Calcutta Symposium on Probability and Statistics" at the University of Calcutta, India during December 28-31, 2015.



DEPARTMENT OF COMMUNITY ONCOLOGY



Dr. Neethu A P
Lecturer , HOD i/c

Dr. Phinse Philip

Lecturer

Community oncology Department started functioning as a full-fledged department since 2010 January .Community Oncology Dept. has been regularly conducting cancer awareness classes, early detection camps, volunteer training programs, health exhibitions and school tobacco awareness classes in 5 districts of northern 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. A brief description of the routine activities is given below.

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 were 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. Short film for tobacco awareness “U- Turn”.

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, Attapadi,Wynad.
- d. Risk group screening camps for HIV patients, sex workers etc.

3. Tobacco cessation clinic

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.

4. 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.

ACTIVITIES & ACHIEVEMENTS

1. "NIRAVE" -A national agriculture mela organised by agriculture dept of Kerala state. A cancer screening camp was also conducted as part of the program.
2. "SOUKHYAM"- Mega medical camp by Nilambur municipality on 22nd April.
3. NETHI RELEASE- 8th edition of nethi newsletter was released at a function held at Chalakkara Usman vayanashala on 25-4-15.
4. World no tobacco day program on 29,30 and 31 at Mahatma mandir ,Kannur Inaugurated by Municipal chairperson Roshni Khalid.
5. Wayanad tribal cancer screening program started in association with Vivekananda medical mission hospital, Muttil.
6. Tobacco awareness program for school children of Mahe region organized in association with Pondicherry health dept. The program was conducted at Kasturba School on 15-6-15.
7. "E-Nethi" release (the digital version of anti tobacco news letter Nethi) was held at KVR memorial school panoor on 20-6-15 by Minister Sri K P Mohanan. E nethi link is available at MCC website.

8. One day seminar on tobacco control for school teachers was held at DIET on 22-6-15. Program was organized in association with Thalassery education district to observe the international day against drug abuse and illicit trafficking. The program was inaugurated by Dr Navjot Khosa Sub collector, Thalassery.
9. SAGY follow up meeting on 2nd July at Kuttiturgama panchayath.
10. Tobacco awareness program and NETHI introduction at Special sub jail, Kasargod on 7 -9-15. Sri N A Nellikunne, MLA inaugurated the function. It was followed by screening of the short film "U turn". Around 50 jail inmates along with jail officials participated in the program. Nethi news letter was distributed at the function.
11. Awareness program and volunteer training in cancer screening at Makreri conducted by SUPM committee. The program was inaugurated by Minister Sri K P Mohanan and presided by Sri K K Narayanan MLA. Dr Satheesan Balasubramanian , Director ,MCC delivered the cancer prevention message. The program was followed by cancer awareness class and training session.
12. Oral cancer training program at Attapadi, Palakkad for NRLM volunteers on October 15,16. 50 NRLM volunteers attended. They were given hands on training in oral cancer screening at tribal hamlets.
13. Release of 9th issue of Nethi at Attapadi by Deputy DMO of palakkad Dr Prabhudas on 16-10-15.
14. Tribal hostel visit and tobacco awareness short film screening on 15-10-15.
15. National cancer day observation: Cancer awareness program and anti tobacco short film screening at Thamarassery. A literary and painting competition for school children and general public were also conducted.
16. Observation of world cancer day at Aralam farm in association with DFO Kannur. Programs include oral cancer screening and breast cancer screening and health exhibition on cancer. Program inaugurated by Sunny Joseph MLA. Dr Satheesan, director MCC delivered cancer day message. Around 1000 tribal people attended the function.

STATISTICS

1. Activities

| Ecde camps | Cancer awareness class | School tobacco | exhibition |
|------------|------------------------|----------------|------------|
| 144 | 60 | 30 | 11 |

2. Pap smear and FNAC

| Pap smear | FNAC |
|-----------|------|
| 1966 | 9 |

3. Oral cancer screening

| Total screened | Oral cancer | Leukoplakia | Lichen planus oral | O S M F | Erythroplakia | Tobacco pouch keratosis |
|----------------|-------------|-------------|--------------------|---------|---------------|-------------------------|
| 5627 | 7 | 142 | 147 | 66 | 28 | 149 |

4. Tobacco cessation clinic

| New patients | Total follow ups |
|--------------|------------------|
| 115 | 228 |

5. Tribal programs

| Camps | School tobacco |
|-------|----------------|
| 115 | 3 |

6. Breast cancer screening

| Total screened | Breast cancer | Fibrocystic diseases | Mammogram advised |
|----------------|---------------|----------------------|-------------------|
| 3746 | 7 | 157 | 173 |

7. Pap smear report

| Ascus | LSIL |
|-------|------|
| 20 | 5 |

CONFERENCES/SEMINAR/ WORKSHOP

Participated and presented paper at Global cancer summit 2015

1. Effectiveness of population based screening in early detection of pre cancerous and cancerous oral lesions in rural population in Kannur district, Kerala” - Dr Phinse M Philip
2. Effectiveness of symptom based mass screening approach in early detection of breast cancer screening in selected 48 Panchayats of Kannur district in northern kerala-Dr.Neethu AP.

RESEARCH PROGRAMS:-

1. Study on the effectiveness of educational short film on over the conventional power point lecture class on tobacco awareness at schools.
2. Sansad Adarsh Gram Yojana (SAGY) project in Kuttiattur grama panchayath.

AWARDS:

Won second prize in poster presentation in KASO meet 2015 held at MCC

STAFF

| Name | Designation |
|-----------------------|-------------------|
| Dr. Neetu A.P | Lecturer, HOD i/c |
| Dr. Phinse M. Philip | Lecturer |
| Mr. Santhosh Kumar K. | Lab Assistant |
| Mrs. Nisha | nursing assistant |
| Mrs. Sheeba | Ward Assistant |

Department of Onco Anesthesiology

INTRODUCTION

Being a recently established department, our first aim, priority wise was to improve the facilities so that we can update our clinical services. So our line of work in the period mentioned was in this direction

NEW EQUIPMENT ACQUIRED

- 1) fluid warmer -2
- 2) forced air body warmer -1
- 3) multipara monitor - 3

PATIENT SERVICES

| | |
|---------------------------|------|
| Total cases | 1162 |
| General anaesthesia alone | 1058 |
| Regional Anaesthesia | 104 |

ACTIVITIES AND ACHIEVEMENTS

Regularised the OT work and ensured the maximum utilization of the OT time. Improved the safety aspect in the anaesthesiology by updating the patient monitoring and ensuring the availability of the difficult airway devices and emergency medicines. Also contributed to the postoperative care actively involving with the surgical team. We also took up the critical care services and initiated the step to establish a 10 to 12 bed ICU. Actively involved in the planning of the 3rd OT and new OT complex and ICU

CONFERENCE/SEMINAR/WORKSHOP:

Participated as a Faculty and delivered a talk in the CNE in critical care organized by nursing Dept of the MCC

RESEARCH PROGRAMS: NIL

PUBLICATION: NIL

STAFF

| Name | Designation |
|---------------------|---------------------------------------|
| Dr Krishna Warriar | Visiting consultant Anesthesiologist |
| Dr Prajeesh Nambiar | Visiting consultant Anesthesiologist |
| Dr Limesh | Visiting consultant Anesthesiologist |
| Dr Anil B | Visiting consultant Anaesthesiologist |
| Dr Sarath K | Visiting consultant Anaesthesiologist |
| Dr Smera K | Visiting consultant Anaesthesiologist |
| Dr Pradeep K | Visiting consultant Anaesthesiologist |
| Dr Nikhil Mohan | Lecturer |

DEPARTMENT OF CANCER PALLIATIVE MEDICINE



Dr. Biji MS
Assistant Professor

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.

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 patients registered in homecare facility. Patients are given medication free of cost. Procedures like ascitic 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 homecare 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.

ACTIVITIES & ACHIEVEMENTS

- Conducted the 2 days contact session of the 5th batch of IAPC course in “Essentials of Palliative care”. A total of 17 candidates ,9 doctors and 8 nurses had attended.
- World Hospice and Palliative Care Day on 10th October 2015 was observed in Malabar Cancer Center. A workshop “Refresher course in Palliative care” was organized for all the students who had undergone BCCPAN (Basic Certificate Course in Palliative Auxillary Nursing) from MCC and are presently working as community nurses and conducting homecare services from different Panchayats of Kannur districts. The aim of the workshop was to refresh them in the area of basic care being offered to a palliative patient at home. About 35 students trained in 8 batches from MCC participated in the workshop. At the end of the workshop due to the need for such classes by the participants ,an association “KIRANAM” was formed for these community nurses with Mrs Ajantha (community nurse of IMA Thalassery Palliative clinic) and Mrs.Ajitha (community nurse of Pinarayi Panchayat) being elected as the President and Secretary of the association respectively. They would take the responsibility to keep the association updated in palliative care in collaboration with MCC.

- IAPC course in “Essentials of Palliative care” started with 14 candidates (all staff nurses). This is the 5th batch in MCC. Contact sessions held on 8.11.15 and 15.11.15.

PUBLICATIONS:

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- M S Biji, Santam Chakraborty, N R Sindhu, Shibimol Thomas, Subhradev Sen, Milind Kumar, Satheesan Balasubramaniam Effectiveness of nurse-led and physician-assisted home care provided from a rural cancer center in India evaluated using the palliative care outcome scale. Journal of Clinical Oncology 01/2014; 32(15_suppl):e20544.
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- Patil VM, Chakraborty S, Sunilkumar S, Dessai S, Geetha M, Sujith M, Babu S, Vikram S, Biji MS, Vineetha R, Nair CK, Satheesan B. Elderly patients with cancer: Kerala showing the way. Abstract Id:878, IJC, Nov 2013, Vol 50, Supplement 1, Geriatric Oncology S287
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- Biji M Sankaran, Santam Chakraborty, Vijay M Patil, Sindhu N Raghavan, Shibimol Thomas, Subhradev Sen Burden and outcome of pressure ulcers in cancer patients receiving the Kerala model of home based palliative care in India: Results from a prospective observational study Indian Journal of Palliative care, volume 21/Issue 2/May-August 2015 (pg 152-157)
- Subhradev Sen, Biji M S, Santam Chakraborty, Sindhu N R, Satheesan Balasubramanian Pairwise Comparison in Repeated Scores-Application in Palliative Cancer Patients Journal of Data Science: Volume 13, Number 4, October 2015
- M.S.Biji, T.Bhattacharyya, A.Bhattacharjee, S.Dessai, N.R.Sindhu, B. Satheesan An audit of pain management in patients referred to the outpatient department of Cancer Palliative Medicine of Malabar Cancer Centre. Abstract ID 218 published in Journal of Cancer Research and Therapeutics, vol 11, Supplement 1-2015

CONFERENCES/SEMINAR/WORKSHOP:

- Dr.M.S.Biji attended KASO MEET 2015 held at Malabar Cancer Centre. Presented a poster “Audit of pain management in patients with gynaecological malignancies referred to the Dept of Cancer Palliative Medicine of Malabar Cancer Centre” and was awarded the first prize.
- Mrs.Sindhu N.R attended the 17th National Oncology Nursing conference 2015 at All India Institute of Medical Sciences, New Delhi and presented a poster on “Effectiveness of a specialist Nurse managed stoma clinic in a rural cancer centre-A retrospective analysis”.
- Conducted “eCare We care”-A workshop on e-palliative care: A workshop on e-Palliative care was organized on 22.07.2015. Around 180 delegates from various palliative center of Kannur Dist, Malappuram Dist participated in the programme which started at 10.00 AM and ended at 5.30 PM. As the home care service from MCC is e-Palliative home care service, the aim of this workshop was to implement this facility in other home care services provided by the link centres. The programme was inaugurated by Dist. Collector Sri. P.Balakiran. One other highlight the programme was the release of a book “Cancer & Palliative Care” by Dr.Anil Paleri, Institute of Palliative Medicine, Director. The first copy was received by Dr.Babu Gopalakrishnan C-DIT Director. Poster competition was also held and prizes were given for the same.
- Dr.M.S.Biji attended the AROICON 2015 con-

ference held at King George's Medical University, Lucknow and presented a paper on "Audit of pain management in patients referred to the Dept of Cancer Palliative Medicine of Malabar Cancer Centre".

- In connection with Palliative Care Day and commemorating MCCs 15 years of compassionate care, a workshop "Essentials in Stoma Care" was held on 16th January 2016. About 155 nurses participated in the program. Dr. Dipin, Dr. Joyal, Dr. Rigved and Dr. Harsha, all in-house doctors took classes. Demonstration class was by Mrs. Sindhu N.R and Mrs. Sunitha, nurses of MCC.
- Mrs. Sindhu N.R took a session on stoma care in a workshop held at District hospital Kasargod. The workshop was attended by nurses, patient carers and doctors.
- Dr. M.S. Biji attended the 23rd International conference of Indian Association of Palliative Care, IAPCON PUNE 2016 and presented two papers.
- Patient satisfaction of homecare service provided through e-palliative homecare service in a tertiary cancer centre of northern Kerala: A pilot study
- Validation of the Malayalam Version of Distress Thermometer.
- Mrs Sindhu N.R took a session on nursing issues for a volunteers training program held at Taluk hospital Payyanur.

- Mrs Sindhu N.R took a session on stoma care for staff nurses at a training program held at Kannur District hospital.

COURSES CONDUCTED:

- IAPC course in "Essentials of Palliative care" for doctors and nurses-4 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

RESEARCH PROGRAMS:

1. Co-PI in the study "Stochastic modeling of Palliative Outcome Score of Cancer patients in presence of Environmental Influences."
2. Co-PI in the study "Anxiety, Depression, Quality Of Life and Its Correlation with Sleep Problems among Breast Cancer Patients-An Institutional Based Cross Sectional Study"
3. PI in the study "Patient satisfaction of homecare service provided through e-palliative homecare service in a tertiary cancer centre of northern Kerala"

AWARD

Dr .M.S.Biji got the first prize in poster presentation in KASO 15 held at Malabar Cancer Centre for the poster "Audit of pain management in patients with gynaecological malignancies referred to the Dept of Cancer Palliative Medicine of Malabar Cancer Centre"

STAFF

| Name | Designation |
|--------------|--|
| Dr. M.S Biji | Assistant Professor and Head of the Department |
| N.R.Sindhu | Staff Nurse |
| 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.



Dr. Pramod Sankar. S
Associate Professor

ACTIVITIES & ACHIEVEMENTS

- A full time dental OPD started functioning
- Prosthetic rehabilitation was included as part of cancer care therapy
- Started maxillofacial prosthesis service
- Dental screening prior to RT and prior to anti resorptive agents were made mandatory.

PATIENT SERVICES

| | |
|-----------------------------|----------|
| patients attended the opd | 2322 |
| extractions | 1325 |
| oral prophylaxis procedures | 128 |
| gic restorations | 70 |
| obturators | 25 |
| root canal treatments | 29 |
| Complete dentures | 13 |
| removable partial dentures | 9 |
| maxillofacial prosthesis | 3 |
| cast RPD | 1 |
| FPD | 13 UNITS |
| CROWN | 1 |
| FLOURIDE CARIERS | 5 |

CONFERENCES, SEMINAR, WORKSHOPS AND PRESENTATIONS

- CME – Hospital Infection Control at MCC
- CDE - Ethical management of dental practice, Kozhikode
- Anaplastology unlimited- hands on training at pune, india, Presented poster
- ICH-GCP Training at MCC
- BLS & ACLS Training at MCC

RESEARCH PROGRAMS:

- “Evaluation of effectiveness of dental intervention and oral care protocol recommended for patients undergoing radiotherapy in a tertiary cancer centre - A Prospective study Started on March 2016.

AWARDS

- Got first runner up for the poster presentation at “ANAPLASTOLOGY UNLIMITED- HANDS ON TRAINING”

STAFF

Dr. Pramod Sankar. S MDS Associate Professor

DEPARTMENT OF ENGINEERING AND MAINTENANCE



Sri. Sudeep K T
Engineer

MCC is having a fully fledged Engineering section. The Department undertakes all the construction works(major & minor),Installation and maintenance of all Medical/Electrical equipments, HT Yard,Transformer VCB, Generators medical/ clinical/ radiation equipments split and ductable Air conditioners, chiller units ,etc We had managed water supply system in the hospital with number of filtered drinking water outlets and maintain well planned sanitary lines with sewage treatment plant In addition to the above, Engineering wing of MCC is handling the AMC of all Hospital equipments and insurance processing of whole Hospital equipments, building, For each and every needs of hospital engineering department gives timely supports as required and attended all the complaints from all sections the day itself . We communicate with consultants in our construction works and gave necessary instructions regarding works and liaison works with BSNL,KSEB, Electrical Inspectorate etc.

- Completed the construction and commissioning of 400 KLD Effluent treatment plant and is working very well now
- Stemcell therapy block and the cord blood bank construction are completed with most modern facilities. There BMT rooms are well equipped

with ICU Pendant LED luminaries Dynamic pass box,controlling system camera, nurses calling system air handling system etc for achieving Class 10K standard rooms

- Construction and installation works of Linac-2 machine are completed and radiation treatment started with this machine
- Medical records room extension works towards lab waiting area has completed and is utilizing
- Ward partition works in pre op wards are completed
- GI Grills and aluminium sliding partitions are provided in private rooms and wards
- Lot of split and split air conditioners are installed at various places for electrification works are carried out departmentally

CONFERENCES, SEMINAR, WORKSHOPS AND PRESENTATIONS

- MCC has send two engineering staff to attend the best practices in energy conservation class (ECBC) conducted by EMC at cochin and the classes was very motivative for the energy con-

servation activities of hospital MCC has send five engineering staff to attend the one day work shop on switch gear training conducted by Electrical Inspectorate Kannur

- Energy conservation activities carried out in the Hospital such as replacing old damaged capacitors, tube lights, rewinded motor etc gives an average saving of Rs 25000/- month in the electricity bill

AWARDS

- We have received state pollution control award for the year 2015-2016 Prize money and the certificate of appreciation was received from the honorable minister of Health & Family welfare Smt K.K Shailaja in a prestigious ceremony held at Kannur
- We got clean office golden crow award for proper file management, waste handling etc from suchitha mission Kerala government

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 |
| Sri.K. N. Sharath Kumar | Supervisor Civil |
| Smt. Lijikrishnan | Biomedical Technician |
| Sri. Sushanth | Electrician |
| Sri. Nyju | Electrician |
| Sri. Rajesh | Electrician |
| Sri. Sunilkumar | Electrician cum plumber |
| Sri. Rasheed | Plumber |
| Sri. Jinsithlal | Plumber |

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 paperworks and daily administrative tasks, the administration also thinks about the future of the Institute and provide additional inputs 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.Preethudas | 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 |

2. HOSPITAL ADMINISTRATION

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.

3. ACADEMIC DIVISION & LIBRARY AND INFORMATION SCIENCE

The Medical Library, the centre of clinical information centre for the hospital, is keeping pace with recent state of art technology and library activities and continuous to functions as information



resource centre. Library is the heart of the institution. It is the backbone of research and development activities every organizations. Our library deemed to the integral part of the progress of MCC in all its academic activities. Our Medical Library caters to the needs of Doctors, nurses, others Para medical staffs and staff and students from other hospitals or academic institutions from all over the country.

This Division is headed by the Medical Librarian and will function under the control of the Officer under whose jurisdiction the Library falls. A Library Committee is constituted to formulate policies regarding the smooth functioning of the Medical Library. The working hours of the Library will be as decided by the Library Committee and the Committee will decide the staff for each shift or may entrust this to the Librarian. All administrative work involving import of books, purchase of journals and back volumes of journals, scrutiny of the bills for payment, calling for tenders, quotations etc; are carried out, under this Division.

Major activities

- Documentation work involving indexing of all the periodicals.
- To procure abstracts of required topics of interest from various journals available in our Library and issue to readers on request.
- Preparation of monthly bulletin, which covers all the books received in the particular month and listed according to subject-wise.
- Preparation of bibliographic in anticipation and on demand.

- Daily statement regarding the issue of journals.
- Entering of loose periodicals in the corresponding registers.
- Entering books purchased in the Stock register.
- Price verification of books and invoices.
- Arrangement of loose periodicals, bounds periodicals and books in the Library.
- Classification of books and their cataloging.
- Registering of current periodicals.
- Duplications checking.
- Preparation of book order cards.
- Arrangements of cards in separate sequences in the books ordered tray, outstanding order tray and books under process tray.
- Processing verification of books, bill tallying etc;-
- Reference service for both ready reference and long range reference

Facilities:

Departmental Library: Departmental Library started during the year 2012 and at present we have more than 5 Departmental Libraries. Each Department maintain two registers, i.e a Stock register and Issue register. The present Medical Library acts as focal point, which is also the Central Library of the institution.

Up-To-Date

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 heavily used medical information resources globally. Up-to-date subscription started from 2013 onwards.

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 book kept in reference. Reference section started in 2013.

24x7 Services: Our library users are busy with their clinical practices at day time and so they cannot utilize their daytime for research activities. To overcome this unavoidable situation Library should be opened for 24 hours. But it is not easy to pro-

vide round the clock service with our present staff strength and hence required an alternative solution. To overcome the situation MCC implemented RFID with CCTV camera in the Library, by which users can access the Library using identification cards and without help of staff. RFID started from 2014 onwards

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.

Digitised Medical Library

A Digital Library (also referred to as digital library or digital repository) is a special library with a focused collection of digital objects that can include text, visual material, audio material, video material, stored as electronic media formats (as opposed to print, microform, or other media), along with means for organizing, storing, and retrieving the files and media contained in the library collection. Digitalization of library doesn't mean to write off the printed books but to add the unlimited scope of digital information to conventional information sources.

Implementation of Online Journals & Database

For the initial establishment and journal subscription an amount of Rs. 70 lakhs was provided to the Medical library of MCC. Required electrification works and networking for the online journal access in the Library also completed. At present we have subscribed 52 online journals in the Library.

Main Digital Resources

- a) Database - Database is an organized collection of information, of a particular subject or multidisciplinary subject areas. The information of a database can be searched retrieved electronically. The contents include journal articles, newspaper articles, book reviews and conference proceedings etc.
- b) E-journals – E-journals, also known as Elec-

tronic journals, or intellectual magazines are that can be accessed via electronic transmission. In practice, this means that they are usually published on the Web. They are a specialized form of electronic document, which provides materials for academic research and study. They are formatted approximately like journal articles in traditional printed journals. The most common database is the one which deals with medical science and allied health sciences. The most common databases in the medical fields of Kerala are Science Direct, EBSCO, MD Consult etc

Purchase

• Print Journal Purchase

Library subscribed 34 print journals in the year. The journals were supplied by three firms, namely Total IT, Prime Magazine and Journal Subscription Services. Prime Magazine supplied 7 journals amounting to Rs. 4, 07,155.91/- ; Total IT supplied 23 Journals of Rs. 9, 13, 328.42 and Journal Subscription Services Supplied 4 journals that cost Rs. 5, 80,000.00.

• Book Purchase

Books were purchased using non-plan fund. Purchase orders were issued to M/s Aryas Publishers for 250 books for an amount of Rs.16,31,372.47 and an Purchase order for 103 books to M/s Tan Prints amounting Rs.4, 84,196.53.

STAFF

| Name | Designation |
|----------------------|---------------------|
| Sri. Subash Chandran | Medical Librarian |
| Sri. Harish Babu | Assistant Librarian |

4. PUBLIC RELATIONS AND CLINICAL SERVICES DIVISION

Sri. C.S Padmakumar

Administrative Officer
(Clinical Services)

Clinical Administration and Public Relations includes, Front Office Management, Public Relations Activities, Medical Records Management and Patients Accounting and Billing.



Major activities:

- Co ordination of academic programs
- 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
- 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
 - Chis Plus
 - Karunya Benevolent Fund
 - Sukrutham
 - Cancer Suraksha Scheme
 - Thalolam
 - Comprehensive Health Care Scheme for Scheduled Tribe
 - Snehasanthwanam for Endosulfan victims
 - Society for Medical Assistance to the Poor
 - ESI Scheme
 - Pondichery Medical Relief Society
 - Prime Minister's Relief Fund
 - Chief Ministers Relief Fund
 - 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.
- 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 -2015

| Descriptions | 2015 |
|---------------------------------------|-------|
| New Cases | 3910 |
| Non Cancerous Cases | 1872 |
| Follow up cases | 47869 |
| Non Cancerous cases(follow up cases) | 2544 |
| Total Patients | 55722 |
| In patients | 3821 |
| Day CT Injections | 10185 |
| IP CT Injections | 2086 |
| Total CT Injections | 12270 |
| Observation cases | 56 |
| Major Surgeries | 1208 |
| Minor Surgeries | 345 |
| Total surgeries | 1553 |
| Scopies | 1767 |
| X-ray | 4627 |
| U S G | 958 |
| Mammogram | 1470 |
| CT Scan | 2927 |
| Esophageal stenting | 1 |
| Biopsy | 2890 |
| FNAC | 913 |
| Cytology | 2356 |
| Histopathology | 4453 |
| Haematology | 42283 |
| Biochemistry | 43865 |
| Urine analysis | 2261 |
| BMA | 357 |
| Peripheral smear | 702 |
| ECG | 590 |
| Bronchoscopy | 217 |

| | |
|-------------------------------------|-------|
| RT Patients(in fractions) | 19126 |
| Number of Patients RT | 926 |
| Brachytherapy | 132 |
| Brachytherapy (pt. bases) | 98 |
| RT Simulator | 434 |
| Volunteer Training programme (ECDC) | 12 |
| Cancer Awarness Classess | 74 |
| Early Cancer Detection Camp | 140 |
| Exhibition | 10 |
| Work Shop | 1 |
| CME | 0 |
| Blood Donation | 457 |
| Component Preparation | 7940 |
| Screening Test | 4121 |
| Blood Donation Camp | 23 |
| ABG | 665 |
| No.of FLUID | 453 |
| CNE | 4 |
| Linac(No.of patient RT) | 535 |
| Linac(RT patient in fractions) | 31828 |
| Tumour Marker | 4272 |
| Second Opinion | 2013 |
| Culture and sensitivity | 5224 |
| Sputum -AFB | 541 |
| Environmental sample | 497 |
| MRI | 1227 |
| Gram stain | 431 |
| Fungal culture | 121 |
| SEROLOGY | 8152 |
| 4D CT | 1284 |
| BMT | 15 |

Details of financial assistance schemes implemented in MCC

| Scheme | No. of Patients | Expenditure in Rs. |
|------------------|-----------------|--------------------|
| ASWAS | 12 | 42880 |
| CHIS PLUS | 2974 | 76330686 |
| CSS | 65 | 6156092 |
| CHCP | 144 | 4359763 |
| ESI | 148 | 11489053 |
| KBF | 3641 | 156579770 |
| PMNRF | 16 | 765728 |
| PMRS | 14 | 823004 |
| PWF | 15 | 176771 |
| SNEHA SANTHWANAM | 16 | 550302 |
| SUKRUTHAM | 924 | 38090070 |
| THALOLAM | 39 | 1404842 |
| Total | 8008 | 296768960 |

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 2015 – 16, 16,462 applications has 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 imbursment claims for investigations/treatment | Treating Doctor | 7 days | Administrative Officer(Clinical Services) | Director |
| 4 | Right to obtain Train concession forms for cancer patients | Hospital Assistant | 1 day | Administrative Officer(Clinical Services) | Director |

MALAYALAM – OFFICIAL LANGUAGE

- More than 90% of the files in MCC are in Malayalam language
- Formulated Bharana Bhasha Ekopana Samidhi
- Formulated Paribhasha Cell
- “Shreshta Bhasha Dinam” and “Shreshta Bhasha Varanacharanam” were also celebrated in MCC on November, 2015. As part of this programme, various literary programs were con-

ducted for staff and students. The winners were awarded in a public function presided by Dr. Sangeetha K Nayanar, Professor and HOD, CLS & TR MCC. The programe was inaugurated by well known writer, mural painter and Kendra Sahithya Academy Emirates Fellow Shri. K.K Marar. Dr. Sithara Aravind, Assistant Professor in Pathology and Sri. C.S Padmakumar, Administrative Officer (CS) were also felicitated in the function.

STAFF

| Name | Designation |
|--------------------------|---|
| C.S Padmakumar | Administrative Officer (Clinical Services) HOD |
| 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 | 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 |
| Sri. Rajeevan U | Telephone Operator |
| Sri. Ratheesh | Attender |

5. ACCOUNTS DIVISION

This Division plays a key role in up-keeping the financial matters of the Centre. The Finance/Accounts Division manages financial activities including all payments and receivables related to the Institution. 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 disbursement, 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.

As the post of Accounts Officer is lying vacant, Shri.V.Sajeendran, Finance Officer, Retd from the O/o Chief Engineer, Irrigation Project II, Thiruvananthapuram, is managing the Division, as Finance Officer, on temporary basis. However recruitment procedures are initiated for filling up this post.

Grant-in aid

Grant in aid received during the year 2015-16 are as follows:

- PLAN - Rs.16,75,00,000/- released out of total 22 crores
- 14th Finance Commission Award – Rs.5 crores.
- NON-PLAN - 8,68,45,000/-

6. PURCHASE/ STORES DIVISION & PHARMACY

Purchase Division

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. 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 | -80 degree C Deep Freezer – 1 No (Model: DW-86 L 959, Haier | Rs.14,85,000/- (Invoice no: HAE/093 dated 02/03/2015) | M/s. Haemolab Equipments, Thejus, 37/2605 D, Nilavareth Lane, Azad Road, Kaloor, Cochin – 682 017 |
| 2 | Apheresis Equipment (Model: Spectra OPTia) | Rs.14,00,000/- (Invoice no: K/C001479/15-16 dated 28/01/2016) | M/s. Kochin Inlab Equipments India Pvt. Ltd. Door # 28/2391-D, Vihaan, Chilavannur, Kadavanthra-PO, Kochi – 682 020 |
| 3 | Spectrophotometer (Model: ND-2000c) | Rs.7,50,000/- (Invoice No: 097dated 11/05/2015) | M/s. JH BIO Innovations Pvt. Ltd, # 3, 2nd Floor, Shivalaya Arcade, Sanjay Nagar Main Road, Sanjay Nagar, Bangalore – 560 094 |
| 4 | Bipap Machine (Make & Model No: PHILIPS RESPIRONICS BIPAP A40) - 04 Nos. | Rs.6,60,000/- (Invoice No: 39 dated 24/04/2015) | M/s. Anamdev Engineers, 1st Floor, “Vrindavan”, Door No. 43/1606 B, North Railway Station Road, Ernakulam, Cochin – 682 018 |
| 5 | Laboratory Centrifuge for Routine Use (Model: THERMO SCIENTIFIC SORVALL ST8) | Rs.6,20,000/- (Invoice No: K/C/001464/14-15 dated 21/02/2015) | M/s. Kochin Inlab Equipments India Pvt. Ltd. Door # 28/2391-D, Vihaan, Chilavannur, Kadavanthra P.O., Kochi – 682 020 |
| 6 | Defibrillator (Model: ZOLL M series) – 3 nos | Rs, 9,45,000/- (Invoice No. 124 dated 27/02/2016) | M/s. Medasis India 1st Floor, Fathima Building, Arabind Ghosh Road, Calicut – 673 001 |

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.



The main activities of Pharmacy are as follows:

1. To ensure that sufficient quantity of medicines and other items are stored/stocked in the Store for ready issue.
2. To assist the Clinicians in obtaining latest information regarding any drug in terms of its trade name, manufacturers name, source details of package etc;_
3. 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.
4. To issue drugs and other items from Pharmacy to OPD/Wards/ICU's/OT and other Departments after receiving proper indents.
5. To maintain the details of drugs and other items issued in register.
6. To ensure that medicinal products are stored appropriately and securely to ensure freshness and potency
7. To keep up to date with recent developments in the pharmaceutical industry.

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 |
| Refsina V | Cashier |

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 related to cancer treatment, i.e, anti-cancer drugs, surgical & disposables, antibiotics, reagents, X-ray films etc;- are purchased through this Division. The Pharmacy Division con-

sists 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, Data entry operator and Ward Assistants. Details of purchase and sales during the year 2015-16 is as below:

- Total purchase amount - Rs. 16,66,06,578/-
- Total sale amount - Rs. 17,68,07,162/-

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.

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 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.



Lasitha KV
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:

| | |
|---|--|
| 1 | Director-MCC |
| 2 | Subject expert |
| 3 | HOD of concerned Department |
| 4 | Special Officer |
| 5 | Administrative Officer |
| 6 | Administrative Officer (Clinical Services) |

This Division undertakes responsibilities in facilitating the selection process and creates offer letters and employment contracts. The establishment works of this Centre are handled under this Division. All recruitment procedures for academic staff as well as non-academic staff are performed by this Division. This Division handles leave matters of staff, service matters, maintenance of service book, dealing with Government related communications, etc. During the year 2015-16, 30 employees have newly joined this Institution and 11 numbers of staff had relieved from the Institution, as detailed below:

Staff who had joined the Institution during 01.04.2015 to 31.03.2016

| Sl. no. | Name | Designation | Joining Date |
|---------|-----------------------------|-------------------------------|--------------|
| 1 | Vini Raveendran | X ray Technician | 01/07/2015 |
| 2 | Dr. Ashish Bens | Assistant Professor | 04/07/2015 |
| 3 | Dr. Kandathil Joseph Philip | Assistant Professor | 12/07/2015 |
| 4 | Soumya NM | Lecturer | 06/12/2015 |
| 5 | Sabitha M.V. | Pharmacy Assistant | 18/01//2016 |
| 6 | Jensy R | Coding Clerk | 22/01/2016 |
| 7 | Akhila Puthilon Kunnath | Laboratory Assistant | 29/01/2016 |
| 8 | Sreeja K.V. | Laboratory Assistant | 01/02/2016 |
| 9 | Arunkumar ES | Dosimetrist/Physics Assistant | 01/02/2016 |
| 10 | Vincy Augustine MA | Lab Technician | 03/02/2016 |
| 11 | Ramitha MG | Lab Technician | 03/02/2016 |
| 12 | Dr. Noushad A | Assistant Professor | 03/02/2016 |
| 13 | Siju VA | Lab Technician | 09/02/2016 |
| 14 | Rachana M. | Pharmacist | 10/02/2016 |
| 15 | Viju V.S. | Store Keeper | 11/02/2016 |
| 16 | Namitha P.K. | Lab Technician | 13/02/2016 |
| 17 | Balukrishnan SR | OT Technician | 17/02/2016 |
| 18 | Aneesh N | Lab Technician | 17/02/2016 |
| 19 | Dhanya Prabha N. | Lab Technician | 17/02/2016 |
| 20 | Biji KR | Lab Technician | 17/02/2016 |
| 21 | Nameetha S | Medical Record Attender | 18/02/2016 |
| 22 | Jyolsana Raghavan | Lab Technician | 19/02/2016 |
| 23 | Thahira D | Blood Bank Tech | 22/02/2016 |
| 24 | Sobhith VK | Medical Social Worker | 22/02/2016 |
| 25 | Sajila VK | Assistant Pharmacist | 22/02/2016 |
| 26 | Sajitha P | Assistant Pharmacist | 22/02/2016 |
| 27 | Aswini V. | Hospital Assistant | 29/02/2016 |
| 28 | Sandhya Devi | Hospital Assistant | 29/02/2016 |
| 29 | Prachith K.S | Coding Clerk | 01/03/2016 |
| 30 | Sreejesh P.P. | OT Technician | 02/03/2016 |

Staff who had left the Institution during the period

| Sl.no | Name | Designation | Joining Date | Relieved date |
|-------|---------------------|---------------------------|--------------|---------------|
| 1 | Sajitha Kumari | Nursing Assistant | 9/29/2011 | 13/05/2015 |
| 2 | Dr. Akhil R Nambiar | Assistant Professor | 7/14/2014 | 03/05/2015 |
| 3 | Dr. Kavitha K P | Associate Professor | 8/1/2012 | 23/05/2015 |
| 4 | Baiju B | Nursing Assistant | 3/9/2001 | 29/05/2015 |
| 5 | Suha P | Attender | 2/26/2014 | 05/08/2015 |
| 6 | Sindhya Rani | Stagg Nurse Grade II | 9/18/2012 | 31/08/2015 |
| 7 | Dr.Amith Sreedharan | Assistant Professor | 9/26/2013 | 03/10/2015 |
| 8 | Suraj Kumar | Medical Records Assistant | 9/24/2012 | 04/11/2015 |

| | | | | |
|----|-----------------------------|---------------------|------------|------------|
| 9 | Jensy R | Coding Clerk | 1/22/2016 | 09/02/2016 |
| 10 | Shafeeque P I | Cytotechnician | 11/20/2012 | 31/01/2016 |
| 11 | Dr. Tapesh Bhattacharjee | Assistant Professor | 1/5/2015 | 04/02/2016 |

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

DEPARTMENT OF ONCOLOGY NURSING



Smt. Annet Fernandez
Nursing Superintendent

ACTIVITIES & ACHIEVEMENTS

- Conducted a training programme on BLS/ACLS by American Heart Association to Nursing Staffs. It was three days training for two batches. (3rd,4th,5th,10th,11th,12th of July 2015)
- CCNM-2015 – CNE on critical care management conducted on 26th July 2015.
- As a part of 15th anniversary of MCC, we conducted a CNE on Early detection of cancer challenges on 13th Dec 2015.
- Essentials in stoma care- CNE and workshop conducted on 16th Jan 2016.
- CVAD-Theory and practical class given to all nursing staff by faculty from TMH Mumbai on 30th Jan 2016.
- A class on Blood collection by BD syringes and iv access on 12th&13th Oct 2015.

INSERVICE EDUCATION

- BLS/ACLS classes and training to all nursing staff by trained doctors in Sept/Oct 2015.
- BLS/ACLS – training update given by faculty from MCC to all nursing staffs on Jan/Feb 2016.
- Pain management class to all staff on 12th Feb 2016.

- A class and discussion regarding Infection control done on 11th March 2016.
- Lymphodema class and practices given to all staffs on 19th March 2016.

CELEBRATIONS

- Nurses Day 12th May 2015- One week programmes include Academic and nonacademic activities.
- World cancer day on 4th Feb 2016-“we can,I can” Health education and awareness programme conducted for patients and relatives.
- Onapookkalam- competition conducted for In patients and relatives on 26th Sept 2015.

TRAINING PROGRAMME

- Two of our nursing staff attended 17th National oncology nursing conference in AIMS New Delhi from 5th Nov to 7th Nov 2015. They presented paper for extravasation and poster for stoma care.
- Paediatric oncology training- one of our staff attended two weeks training in March 2016 at TMH Mumbai.

STAFF

| Name | Designation |
|-----------------|---------------------|
| Annet Fernandez | Nursing Superintend |
| 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 |
| 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 |
| Lethamma 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 |
| 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 |

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

| Sl.no | Participant/Speaker | Conference/Meeting | Paper/Poster |
|-------|---------------------|---|---|
| 1 | Dr. Geetha M | Multidisciplinary urooncology meet –Prostate cancer symposium held at Punjab institute of medical sciences, jalandhar | Poster: Patterns of presentations in prostate cancer optimal therapy 2015 |
| 2 | Dr. Geetha M | Tata memorial hospital women cancer initiative conference | Oral presentation: Cervical cancer chemoradiation in elderly |
| 3 | Dr. Geetha M | Aroicon 2015 lucknow | Poster presentation :Impact on laryngectomy and tracheostomy free survival in laryngopharyngeal cancer patients treated with different schedules of concurrent chemoradiation |
| 4 | Dr. Geetha M | Arc 2015 , Malabar cancer centre | Oral presentation: MR Brachytherapy. |
| 5 | Dr. Vinin N V | ISMPO-ISO 2015 Conference held at Mumbai | poster presentation on ‘ An audit of pathological response to Paclitaxel and Trastuzumab in Her 2 Neu locally advanced Carcinoma Breast patients |
| 6 | Dr. Vinin N V | 5th Biennial International Metronomic & Antiangiogenic Meeting held at TMH | poster on ‘An audit of results of a triplet metronomic chemotherapy regimen incorporating a tyrosine kinase inhibitor in recurrent/ metastatic head & neck cancer patients |
| 7 | Dr. Vinin N V | ART 2015, conducted in Malabar Cancer Centre | Oral presentation on ‘Target Delineation in Head & Neck Cancers’ |
| 8 | Dr. Vinin N V | International Workshop on Precision Radiotherapy organized by RCC, Thiruvananthapuram | Delegate |
| 9 | Dr. Vinin N V | CME on Lymphomas conducted by Kerala Chapter of Association of Radiation Oncologist of India held at Tvpm. | Delegate |
| 10 | Dr. Vinin N V | Pre Conference workshop/Annual meeting of Kerala Chapter Association of Radiation Oncologist of India held at Kochi | Delegate |
| 11 | Dr. Vinin N V | Workshop on “Basic Techniques in Molecular Biology in Clinical perspective”- 2016 held at Malabar Cancer Centre | Delegate |
| 12 | Resmi K Bharathan | AMPICON 2015, Trivandram | Poster: Combined VMAT AND 3DCRT for the Esophageal Carcinoma over VMAT and 3DCRT |
| 13 | Shilpa Ajayakumar | AMPI conference,Trivandrum | Poster: Out of field photon dose measurement for VMAT Head and neck Cancer using 2D array |

| | | | |
|----|-------------------------------|--|--|
| 14 | Shilpa Ajayakumar | ART 2015, Malabar Cancer Centre | Oral Presentation: Role of electrons in Head and Neck Cancer |
| 15 | Shilpa Ajayakumar, Suja C A | Monaco Treatment planning system Training, Chennai | Delegate |
| 16 | Suja C A | AMPI conference, Trivandrum | Poster: Simultaneously Integrated boost versus sequential VMAT treatment plans for head and neck cancers- Dosimetric study |
| 17 | Dr. Sajith Babu | 15th National conference of FHNO held at Nagpur | 1. Poster : Oncological safety of submental artery island flap in defects after oral cancer surgery 2. Poster: Visual correlation of intraoperative nodal gross finding with histopathology in No , N1 neck in head and neck cancer – a prospective study |
| 18 | Dr. Hamsa Nandini | 15th National conference of FHNO held at Nagpur | Poster : “ Assessment of the morphology tumour front in tongue cancer using MRI and its surgical implications ” |
| 19 | Dr. Shivakumar | 15th National conference of FHNO | 1. Poster : “ Use of local flaps in oral cancer reconstruction in the era of free flaps”. 2. Poster: Implication of soft factors in oral cancers |
| 20 | Dr. Atul Singh | 15th National conference of FHNO | Poster : “ Is chemoradiation indicated in patients with multiple nodes without extracapsular extension in oral cancer” |
| 21 | Dr. Adarsh | gynaec oncology conference at Delhi | Paper: role of surgery in carcinoma cervix patients – audit from tertiary cancer centre |
| 22 | Dr. Shamna Mohammed | annual meet of IASO | E Poster : Feasibility of sentinel node biopsy in breast cancers in rural setup Paper : Initial experience with intraoperative extracorporeal autogenous irradiated bone grafts for functional limb salvage surgery in extremity osteosarcoma” |
| 23 | Dr. Vinin, Dr. Joneetha Jones | AROI Kerala chapter state conference | Delegate |
| 24 | Dr Amith | Pulmocon 2015 | Delegate |
| 25 | Dr. Chandran K Nair | HEMATOCON 2015 | poster on “Impact of thrombosis on standard treatment in solid tumors |
| 26 | Dr. Chandran K Nair | Transfusion Medicine CME at MCC | Transfusion support in hematological malignancies |

| | | | |
|----|-----------------------------|--|--|
| 27 | Dr. Vineetha Raghavan | PHOCON 2015 | Poster: An Audit of Febrile Neutropenia in children with Acute leukemia treated at a tertiary Cancer Centre in South India Poster: Hemophagocytic lymphohistiocytosis in a child with ALL |
| 28 | Dr. Chandran K Nair | ASH 2015 , Florida | Delegate |
| 29 | Dr Phinse M Philip | Global cancer summit 2015 | Paper: Effectiveness of population based screening in early detection of pre-cancerous and cancerous oral lesions in rural population in Kannur district, Kerala |
| 30 | Dr. Neethu AP | Global cancer summit 2015 | Paper: Effectiveness of symptom based mass screening approach in early detection of breast cancer screening in selected 48 Panchayats of Kannur district in northern kerala- |
| 31 | Dr. Pramod Sankar | Anaplastology Unlimited-Hands on Training | Poster |
| 32 | Deepak Roshan VG | National Seminar "Recent Advances in Molecular Biology-2016" | Cancer Genetics: Bench to Bedside in the era of NGS |
| 33 | Deepak Roshan VG | National Seminar "Recent Advances in Molecular Biology-2016" | Poster: Frequency of BCR-Abl fusion transcript variants in CML patients from Northern Kerala |
| 34 | Dr. Satheesh Babu T V | CNE on Early detection of cancer- Challenges | Mammography – An introduction to nurses |
| 35 | Dr. Satheesh Babu T V | CME conducted by MCC on head and neck cancer | CT and MRI of head and neck region : Technical aspects and anatomy |
| 36 | Dr. Aswathy | International CME on Gynaec Pathology at Chennai | Clear cell carcinoma arising in an endometrial polyp in Uterus |
| 37 | Dr. Mridula | APCON National conference | Frozen section evaluation in Head & Neck Oncosurgery-an initial experience in a tertiary cancer centre |
| 38 | Dr. Bhavadeep Kumar Reddy S | APCON National conference | Clinicopathological profile of endometrial stromal sarcomas(ESS)-4 year study in a tertiary cancer centre |
| 39 | Dr. Varadajaraj Perumal | APCON National conference | A study of Frozen section assessment in the evaluation of axillary sentinel lymph node in breast cancer-a pilot study in tertiary cancer centre |
| 40 | Nimi K G | Gynaec conference | Spectrum of cervical changes on pap smears in high risk females of North Kerala |

| | | | |
|----|----------------|---|--|
| 41 | Dr.Sany Philip | IAPM Kerala State Chapter meeting | Cribriform Adenocarcinoma of minor salivary gland in retromolar trigone- Case presentation at |
| 42 | Dr. Biji M S | KASO MEET 2015 | poster “Audit of pain management in patients with gynaecological malignancies referred to the Dept of Cancer Palliative Medicine of Malabar Cancer Centre” |
| 43 | Smt Sindhu N R | 17th National Oncology Nursing conference 2015 | Effectiveness of a specialist Nurse managed stoma clinic in a rural cancer centre-A retrospective analysis |
| 44 | Dr. Biji M S | AROICON 2015 | Paper : Audit of pain management in patients referred to the Dept of Cancer Palliative Medicine of Malabar Cancer Centre” |
| 45 | Dr. Biji M S | 23rd International conference of Indian Association of Palliative Care,IAPCON PUNE 2016 | Paper:1 Patient satisfaction of homecare service provided through e-palliative homecare service in a tertiary cancer centre of northern Kerala : A pilot study Paper 2: Validation of the Malayalam Version of Distress Thermometer. |
| 46 | Dr. Mohandos | TRANSMEDCON – 4th Annual National Conference | Oral Presentation: Simplified Quality Control in CD 34 Enumeration of Leukapheresis product by Flow Cytometry Poster Presentation: Comparison of Autologous Plasma and Human Serum Albumin as cryoprotectant in Stem cell Cryopreservation. Its Clinical Impact |
| 47 | Smt Bindu T | International Conference on Statistics for Twenty-first Century(ICSTC 2015) | Cure Rate Models Using Generalized Lambda Distribution |
| 48 | Smt. Bindu T | Meeting of the Research Area Panel (RAP) on cancer of NCDIR, Bengluru | The consolidated report of Hospital Based Cancer Registry (2012-2014) |

PUBLICATIONS

| Sl. No | Scientific Papers |
|--------|---|
| 1 | Bhattacharyya T, Purushothaman K, Puthiyottill SS, Bhattacharjee A, Muttah G Immunological interactions in radiotherapy-opening a new window of opportunity. <i>Ann Transl Med.</i> 2016 Feb;4(3):51. doi: 10.3978/j.issn.2305-5839.2015.10.44. |
| | Dessai SB, Chakraborty S, Babu STV, Nayanar S, Bhattacharya A, Balasubramanyam S, Patil VM. Tolerance of Paclitaxel and Carboplatin as NACT in advanced ovarian cancer patients who are unlikely to tolerate 3 weekly Paclitaxel and Carboplatin. Accepted in <i>IJC</i> , 2014 |
| 2 | Puthiyottill SS, Bhattacharyya T, Purushothaman K, Muttath G Phase 2 Study of Docetaxel, Cisplatin, and Concurrent Radiation for Technically Resectable Stage III-IV Squamous Cell Carcinoma of the Head and Neck: In Regard to Inohara et al. <i>Int J Radiat Oncol Biol Phys.</i> 2015 Oct 1;93(2):469-70. doi: 10.1016/j.ijrobp.2015.05.031. |
| | Bleomycin lung toxicity in Hodgkin's Lymphoma patients – A Retrospective Study at a tertiary cancer centre in North Kerala: submitted for publication |
| 3 | Bhattacharyya T, Purushothaman K, Puthiyottill SS, Muttath G External Beam Radiation Therapy and Abiraterone in Men With Localized Prostate Cancer: Safety and Effect on Tissue Androgens. In Regard to Cho et al. <i>Int J Radiat Oncol Biol Phys.</i> 2015 Nov 1;93(3):719. doi: 10.1016/j.ijrobp.2015.06.028. |
| 4 | Purushothaman K, Puthiyottill SS, Bhattacharya T, Muttath G Adjuvant Radiation Therapy and Local Control After Surgical Resection in Patients With Localized Adrenocortical Carcinoma: In Regard to Sabolch et al. <i>Int J Radiat Oncol Biol Phys.</i> 2015 Oct 1;93(2):465. doi: 10.1016/j.ijrobp.2015.06.018. |
| | Modified Visor Flap Technique for Approach to Advanced Head and Neck Cancer. <i>Annual Journal of Otolaryngology and Head and Neck Surgery</i> , 2014, vol 22. ISSN 2321-8428. |
| 5 | Vinini NV, Prem SS, Pillai A, Reddy KS, Halanaik D, et al. (2015) Early Cardiac Changes Due to Doxorubicin based Chemotherapy and Radiotherapy in Early and Locally Advanced Carcinoma Breast Patients: an Observational Study. <i>J Nucl Med Radiat Ther S7:004.</i> doi:10.4172/2155-9619.1000S7-004 |
| 6 | Chandran K. Nair, Atanu Bhattacharjee, Vineetha Raghavan, Satheesh Babu, Satheesan Balasubramanian Impact of thrombosis on standard treatment in solid tumors Accepted for publication in <i>Thrombosis Research.</i> |
| 7 | Mathai A, Balasubramanian S, Babu S. Oral Commissure Defect Reconstruction with Modified Biflanged Submental Artery Island Flap. <i>Int J Head Neck Surg</i> 2015;6(1):38-40. |
| 8 | S Thiagarajan, TPS Babu, S Chakraborty, VM Patil, A Bhattacharjee, S Balasubramanian Head and Neck cancer in geriatric patients: Analysis of the pattern of care given at a tertiary cancer care centre,. <i>Indian Journal of Cancer</i> DOI:10.4103/0019-509X.176734 |
| 9 | Nayanar, Sangeetha K, Shiva Kumar T, M K Aswathy, Sajith Babu S, and A Sithara. "Case Report Eccrine Porocarcinoma : A Challenging Case Series" <i>Scholars Journal of Applied Medical Sciences (SJAMS)</i> ISSN 2320-6691 (Online) <i>Sch. J. App. Med. Sci.</i> , 2016; 4(3E):1003-1007 |
| 10 | Dr.Sangeetha K N, Dr.Shivakumar Eccrine Porocarcinoma-a challenging case series- -accepted in <i>Scholars Medical Journal of case reports</i> Feb 2016 |
| 11 | Dr.Vidhyadhar, Dr.Sithara A, Dr.Sangeetha K, Dr.Sampada, Dr.Satheesan B Endometrial stromal sarcoma-a clinico-pathological study---sent to <i>Journal of evolution of Medical & Dental Sciences</i> -April 2016 |
| 12 | Palat G, Biji MS, Rajagopal MR Pain Management in Cancer Cervix <i>Indian Journal Of Palliative Care</i> (year 2005,vol 11,issue:2,page 64-73). |
| 13 | Biji MS, Gayatri Palat, MR Rajagopal, Rajeshwari Nair , Charu Singh The prevalence of biochemical abnormalities associated with delirium in palliative care <i>International Research Journal in Science, Technology and development.</i> (year 2014,vol 1,page 15-23) |
| 14 | Santam Chakraborty, M Geetha, K M Sujith, M S Biji, B Sateeshan Palliative low dose fortnightly methotrexate in oral cancers: Experience at a rural cancer centre from India <i>South Asian journal of cancer.</i> 07/2014; 3(3):166-70 |

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| 15 | M S Biji, Santam Chakraborty, N R Sindhu, Shibimol Thomas,Subhradev Sen, Milind Kumar, Satheesan Balasubramaniam Effectiveness of nurse-led and physician-assisted homecare provided from a rural cancer center in India evaluated using the palliative care outcome scale. Journal of Clinical Oncology 01/2014; 32(15_suppl):e20544. |
| 16 | M. S. Biji, N. R. Sindhu, Santam Chakraborty, M. Geetha, C. A. Suja, Liji Bineesh Oral Morphine Utilization During Adjuvant Rapidarc IMRT in Oral Cancers: Need for Routine Palliative Care Integration Indian Journal of Palliative Care, Bhubaneshwar |
| 17 | Patil VM, Chakraborty S, Sunilkumar S, Dessai S, Geetha M, Sujith M, Babu S, Vikram S, Biji MS, Vineetha R, Nair CK, Satheesan B. Elderly patients with cancer: Kerala showing the way. Abstract Id:878,IJC,Nov 2013,Vol 50,Supplement 1,Geriatric Oncology S287 |
| 18 | Dessai SB, Santam Chakraborty, Sajeev Kumar PB, Sajith Babu,Geetha Muttath, Chandran Nair, Shivakumar Thiagarajan, Biji Sughosh, Atanu Bhattacharjee, Patil VM Pilot study of single-day distress screening with the NCCN distress thermometer to evaluate the feasibility of routine distress screening in tertiary cancer center in rural India. Psycho-Oncology 12/2014 |
| 19 | Biji M Sankaran,Santam Chakraborty,Vijay M Patil,Sindhu N Raghavan,Shibimol Thomas,Subhradev Sen Burden and outcome of pressure ulcers in cancer patients receiving the Kerala model of home based palliative care in India:Results from a prospective observational study Indian Journal of Palliative care ,volume 21/Issue 2/May-August 2015 (pg 152-157) |
| 20 | Subhradev Sen, Biji M S, Santam Chakraborty, Sindhu N R, Satheesan Balasubramaniam Pairwise Comparison in Repeated Scores-Application in Palliative Cancer Patients Journal of Data Science: Volume 13, Number 4, October 2015 |
| 21 | M.S.Biji ,T.Bhattacharyya, A.Bhattacharjee, S.Dessai, N.R.Sindhu ,B.Satheesan An audit of pain management in patients referred to the outpatient department of Cancer Palliative Medicine of Malabar Cancer Centre. Abstract ID 218 published in Journal of Cancer Research and Therapeutics,vol 11,Supplement 1-2015 |
| Other Publications | |
| 1. | Nethi News letter 8th Edition |
| 2. | Abhayam News letter |
| 3. | Hospital Based Cancer Registry Report for the year 2014 |
| 4 | Hospital Annual Report 2013-14 |

RESEARCH PROJECTS:

| Sl.no | Project Title | Investigators | Retrospective/Prospective | Status |
|-------|---|--|---------------------------|-----------|
| 1 | CA Prostate Pattern of presentation in Northern Kerala | Dr. Geetha M | Retrospective | Completed |
| 2 | Volumetric Modulated Arc Therapy in Ca Prostate: Dosimetric comparison IMRT & 3DCRT | Dr. Tapeshe Bhattacharyya, Dr. Geetha M | | |
| 3 | An audit of pain management in Patients referred to the OP of OPD of cancer palliative medicine of MCC | Dr. Biji Ms | Retrospective | Completed |
| 4 | A prospective study to assess the factors influencing treatment plan in patients with geriatric Head & Neck cancer | Dr. Sivakumar T | Prostective | |
| 5 | Should low dose CT scan of the thorax be the minimum radiological investigation done to rule out lung metastases in advanced HNSCC (Stage II- IV) | Dr. Sivakumar T | | |
| 6 | Accuracy of intraoperative cervical lymph node assessment in clinically N0, N1 in Oral cancer- Prospective Study | Dr. Nagendra Kadapa | Prostective | Completed |
| 7 | An audit of dosimetry profile in prostate cancer with VMAT | Dr. Geetha M | Retrospective | Completed |
| 8 | A prospective study on post transfusion platelet count increment after ABO compatible and incompatible transfusion of Apheresis Platelets | Dr. Mohandoss M, Dr. C K Nair | Prostective | Completed |
| 9 | Frequency and Impact on survival of thrombosis in solid tumors | Dr. C K Nair, Dr. Vineetha R | Retrospective | Completed |
| 10 | Comparison of set up errors in Pelvic cancer using VACLOC & Thermoplastic Shell with Pelvic Separator | Gibesh K P, Josna AJ | Prostective | Completed |
| 11 | A study on compliance of bladder filling protocol in patients on pelvic radiotherapy | Dr. Geetha M | Prostective | |
| 12 | Genetic Causes for Bleomycin Toxicity in HL patients- A prostective study | Dr. Chandran K Nair, Dr. Deepak Roshan | Prostective | |

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|----|---|---|---------------|---------------|
| 13 | A Bayesian Estimate of Concordance Correlation Coefficient with application to MRI & CT Scan data | Dr. Atanu Bhattacharjee | | |
| 14 | A Study on evaluating the directional dependency of 2D 729 ion chamber array clinically with different IMRT plans | Dr. S A Syam Kumar | Retrospective | Completed |
| 15 | Multi organ resection and morbidity in advanced colorectal cancers -An analysis from a Tertiary Cancer centre | Dr. Satheesan B | Retrospective | |
| 16 | An analysis of factors that influence weight loss in patients undergoing Radiotherapy | Dr. Tapesch Bhattacharyya, Dr. Geetha M | Prostective | Not completed |
| 17 | Determination of Robust imaging procedure in RT treatment planning through ACTV in Head and Neck cancer patients | Dr. Tapesch Bhattacharyya | Retrospective | Completed |
| 18 | Lateral approach to for thyroidec-tomy for thyroid cancers analysis of surgical outcomes | Dr. Sajith Babu | Retrospective | |
| 19 | Anxiety Depression Somatic Symptoms and Fear of Recurrence in Multiple Myeloma Survivors, A institution based cross sectional study | Dr. Sanjeev Kumar P B, Dr. C K Nair | Prostective | Ongoing |
| 20 | Quality of life and Unmet Needs among Multiple Myeloma Survivors, An institution based cross sectional study | Dr. Sanjeev Kumar P B, Dr. C K Nair | Prostective | Ongoing |
| 21 | A Study on the Toxicity Profile of Hypofractionated Adjuvant Radiotherapy in Breast Carcinoma | Dr. Sanudev Sadanandan V P, Dr. Geetha M | | |
| 22 | Thyroid cancer- A surgical audit of five yeares | Dr. Hamza Nandini, Dr. Sajith Babu, Dr. Sivakumar, Dr. Nagendra Kudappa | Retrospective | |
| 23 | Clinical and Microbiological profile of Febrile Neutropenia in Acute Myeloid Leukemia in patients treated at a Tertiary Cancer Centre | Dr. Vineetha Raghavan, Dr. Chandran K Nair | Retrospective | Completed |
| 24 | Retospective audit of mulitple myeloma cases | Dr. Vineetha Raghavan, Dr. Chandran K Nair | Retrospective | Completed |

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|----|--|---|---------------|-----------|
| 25 | Study on effectiveness of Anti-tobacco Short Film over conventional PPT Lecture Class on Tobacco Awareness at Schools | Dr. Satheesan B, Dr. Phinse M, Dr. Neetu A P | Prostective | |
| 26 | Combined VMAT and 3DCRT for the esophageal carcinoma over VMAT & 3DCRT alone | Reshmi K Bharathan | | Completed |
| 27 | Quality assurance of medical linear accelerator | Dr. S A Syam Kumar | | Completed |
| 28 | Comparison of beam profiles and wedge factors for physical and enhanced dynamic wedge | Dr. S A Syam Kumar | | Completed |
| 29 | Concordance Coefficient with Application to PET & CT Scan Data on Tumor size and Standardized Uptake Value in Lung cancer | Dr. Tapesh Bhattacharyya, Dr. Atanu Bhattacharjee, Dr. Kiran P | | |
| 30 | EGFR- An important prognostic and predictive markers in Adeno Ca Lung - An application with AFT modeling | Dr. Tapesh Bhattacharyya, Dr. Atanu Bhattacharjee, Dr. Kiran P | | |
| 31 | Head and neck cancer patients treated with radiotherapy; Measuring of waiting time through a cure rate modeling approach | Dr. Tapesh Bhattacharyya, Dr. Atanu Bhattacharjee, Dr. Geetha M | Prostective | |
| 32 | Competitiveness of a new life time distribution in the light of endometrial cancer survival data | Subradev Sen, Dr. Sampada Desai | Retrospective | |
| 33 | A parametric frailty approach to find the factors affecting the survival time of carcinoma stomach patients treated with surgery | Subradev Sen, Dr. Satheesan B | Retrospective | |
| 34 | A parametric frailty approach to estimate unknown heterogeneity Head & Neck Cancer patients treated with Radiotherapy | Subradev Sen, Dr. Tapesh Bhattacharyya | Retrospective | |
| 35 | Evaluation of set up errors in Head and Neck with image guidance of CBCT | Josna AJ, Sherin Paul, Subina TK | Prostective | Completed |
| 36 | Study the effect of natural compound in obesity associated treatment resistant breast cancer cells | Dr. Deepak Roshan, Dr. Sreejith, Dr. Sangeetha K Nayanar | Retrospective | Ongoing |
| 37 | Audit of community based screening mammography from a tertiary cancer centre | Dr. Satheesh Babu T V, Sheena T P | Retrospective | Completed |

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|----|---|---|---------------|-----------|
| 38 | Signal intensity related cut off in inphase/opposed phase 4 imaging of spine for the characterization of Benign vs Malignant Lesion | Dr. Satheesh Babu T V, Deepu P | | Completed |
| 39 | Transfusion Documentation - Are we doing good | Dr. M Mohandoss, Ms. K K Jasna | Retrospective | |
| 40 | Evaluation of field size & energy dependence of electron beams at extended SSPs. | Suja C A | Prostective | Completed |
| 41 | Impact of dose fractionation on Laryngectomy free survival in locally advanced carcinoma larynx. A retrospective analysis | Dr. Geetha M, Dr. Tapes h Bhattachariya | Retrospective | |
| 42 | An audit of extravasation of following administration of chemotherapy drugs done at a rural based tertiary cancer centre in Kerala | Dr. Joneetha Jones, Dr. Satheesan B, Sabitha K | Retrospective | Completed |
| 43 | Effectiveness of a specialist nurse managed stoma clinic in a rural cancer centre- A retrospective analysis | Dr. Biji Ms, Dr. Satheesan B, Sindhu N R | Retrospective | Completed |
| 44 | Health Literacy through peoples participation | Dr. Satheesan B, Dr. Phinse M, Dr. Neetu A P | Prostective | Ongoing |
| 45 | Validation of the Malayalam version of distress thermometer | Dr. Biji MS, Dr. Sampada Desai, Dr. Satheesan B | Prostective | Ongoing |
| 46 | Development of Thermal Sensor Based Monitoring System for early detection and screening of Breast Cancer | Dr. Geetha | | Ongoing |
| 47 | Use of a age adjusted charison comorbidity index to predict the perioperative complications in oncological patients undergoing pelvic surgeries | Dr. Sampada Desai | | |
| 48 | Efficacy of frozen sections in head and neck oncology - A retrospective study in a tertiary cancer centre | Dr. Aswati Krishnan, Dr. Sangeetha K Nayanar, Dr. Mrudula K I | Retrospective | Completed |
| 49 | Retrospective analysis of prospective database of oral cavity to assess recurrence & survival pattern | Dr. Sajith Babu | Retrospective | |
| 50 | An audit of HER 2 Neu positive breast cancer | Dr. Kiran P, Dr. Tapes h Bhattacharyya | Retrospective | Ongoing |

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|----|---|--|---------------|-----------|
| 51 | Correlation between toxicity and response in EGFR palliative adenocarcinoma lung | Dr. Kiran P, Dr. Tapesht Bhattacharyya | | Ongoing |
| 52 | Audit of early stage ca cervix primarily treated by surgery | Dr. Adarsh | Retrospective | |
| 53 | Profile of cellular changes in PAP smear of high risk group ECDC in North Malabar Region | Dr. Neetu, Dr. Sitara | Retrospective | |
| 54 | Safety+Accuracy of Robotic Procedure using offline planning software | Dr. Sajith Babu | Prostective | |
| 55 | Clinical and pathological profile of endometrial stromal sarcomas - 4 year study in a tertiary cancer centre | Dr. Sitara Aravind, Dr. Bhavaddep Reddy | Retrospective | Completed |
| 56 | A comparative study on effect of Cryoprotective solutions on Peripheral Blood Hematopoietic Stem cells. Human Albumin Versus Autologous Plasma on Engraftment after Autologous Trasplantation | Dr. M Mohandoss, Dr. C K Nair | Retrospective | |
| 57 | Flow Cytometric Enumeration of CD34+ cells in Leukopheresis Product an institutional experience | Dr. M Mohandoss, Dr. C K Nair | Retrospective | |
| 58 | Impact of Radiotherapy volume on weight loss in pateints undergoing radiotherapy for head and neck cancers | Rajinesh Kumar O K | Retrospective | Completed |
| 59 | A study on the effectiveness of Medical Record Management System in Malabar Cancer Centre, Thalassery | Dr. S A Syam Kumar | | Completed |
| 60 | Dosimetric Comparison of Three different intensity Modulated Radiotherapy techniques for Esophageal Cancer | Dr. S A Syam Kumar | Retrospective | Completed |
| 61 | Patient satisfaction of homecare service provided through e-palliative home care service of MC | Dr. Biji M S | Prostective | On going |
| 62 | Cure rate models using Generalized Lambda Distribution | Bindu T | | Ongoing |
| 63 | Non-diphthertic Corynebacterial infections in cancer patients: Their incidence, categorization and antibiogram | Dr. Sajani Samuel | | Completed |

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|----|--|---|---------------|-----------|
| 64 | Out of field photon dosimetry in Head and Neck cancer Radiation therapy | Silpa Ajay Kumar | | Ongoing |
| 65 | Study of set-up errors and PTV margins by CTBT in Thoracic Radiotherapy | Dr. Geetha M | | Completed |
| 66 | Comparison of Post-Op morbidity in breast cancer patients with early and late discharge | Dr. Satheesan B | | |
| 67 | A study on the quality of life of gynecological cancer survivors treated from Malabar Cancer Centre between January 2010 and December 2013 | Dr. Ashish Bens, Dr. Satheesan B | Prostective | |
| 68 | A retrospective study to assess the outcome of definite chemoradiation in locally advanced esophageal carcinoma | Dr. Sanudev Sadanandan V P, Dr. Kiran P | Retrospective | |
| 69 | A study to assess the outcome of anaplastic thyroid cancer treated at Malabar Cancer Centre in terms of overall survival | Dr. Sanudev Sadanandan V P, Dr. Kiran P | Retrospective | |
| 70 | A Prospective Observational study to assess the rate of positivity of deep circumflex iliac lymphnodes in Pelvic Malignancies | Dr. Remya A, Dr. Sampada Desai, Dr. Satheesan B | Prospective | Ongoing |
| 71 | Evaluation of effectiveness of dental intervention and oral care protocol recommended for patients undergoing radiotherapy in a tertiary cancer centre - A Prospective study | Dr. Pramad Sankar | | Ongoing |
| 72 | A retrospective study to assess the outcome of concurrent chemo-radiation in Nasopharyngeal Carcinoma in a tertiary cancer centre from south India | Dr. Sanudev Sadanandan V P, Dr. Kiran P | Retrospective | |
| 73 | Development of Panchayath wise Cancer Mapping Application for Kannur and Kasaragod Districts of Kerala State | Ranjith MK, Ratheesan K | Retrospective | Completed |
| 74 | Canteen Automation System | Bhavina C | | Completed |
| 75 | IT Asset Managing System | Bhavina C | | Completed |
| 76 | A Study of Measuring Socio Economic Status of Patients | CS Padmakumar, TP Sudhakaran (C-Dit) | | Completed |

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|----|--|---|---------------|-----------|
| 77 | Re-Engineering the OP Process in MCC | CS Padmakumar, TP Sudhakaran (C-Dit) | | Completed |
| 78 | To Design and Propose an effective Communication System in MCC | CS Padmakumar | | Completed |
| 79 | Financial Assistance allowed in MCC | CS Padmakumar | | Completed |
| 80 | Medical Equipment Maintenance Software | Sudeep K T | | Completed |
| 81 | A Comparison Study of NAHB Standards with respect to MCC, Thalassery | Sudeep K T, Liji Krishnan | | Completed |
| 82 | Biomedical Waste Management System in MCC | Sudeep K T | | Completed |
| 83 | a study on the quality of life of gynecological cancer survivors treated from malabar cancer centre between january 2010 and december 2013 | Dr Ashish Bens, Dr. Satheesan B | | |
| 84 | a study to assess the outcome of anaplastic thyroid cancer treated at malabar cancer centre in terms of overall survival | Dr. Sanudev Sadanandan V P, Dr. Kiran P | | |
| 85 | Incidence of Metabolic Syndrome in Solid Organ Malignancies- A Prospective Observational Study from North Kerala | Dr. Satheesan B, Dr. Joyal Jose | | |
| 86 | Oncological and Functional Outcome of Patients undergone limb salvage Surgery- A Retrospective Analysis | Dr. Satheesan B, Dr. Dipin, Dr. Joyal Jose | Retrospective | Completed |
| 87 | NPWT- Negative Pressure wound therapy in cancer patients | Dr. Satheesan B, Dr. Rived N | | |
| 88 | Retrospective Study on Treatment outcome of patients with rectal cancer treated in single versus multiple centres | Dr. Satheesan B, Dr. Dipin, Dr. Geetha M | Retrospective | |
| 89 | To Assess usefulness and success rate of Supraclavicular flap for Head & Neck Oncology Reconstruction | Dr. Bhushan Kathuria, Dr. Sajith Babu, Dr. Harsha K M | | |

CONFERENCE/ SEMINAR CONDUCTED/DAYS OBSERVED

| Sl.no | Conference/Seminar | Department/Division |
|--------------|---|---|
| 1 | ART 2015 | Department of Radiation Oncology |
| 2 | NUTRIC 2016 | Department of Surgical Oncology |
| 3 | KASO MEET | Department of Surgical Oncology |
| 4 | Essentials of Stoma Care | Department of Surgical Oncology |
| 5 | Children' day | Department of Clinical Hematology |
| 6 | SURV'15 | Clinical Research and Biostatistics |
| 7 | ICH-GCP Training | Clinical Research and Biostatistics |
| 8 | HTCT-15 | Clinical Research and Biostatistics |
| 9 | Hands on workshop in Basics in molecular Techniques in clinical perspective | Division of Genetics |
| 10 | Hand on workshop in HLA typing | Division of Genetics and Transfusion Medicine |
| 11 | CME on Hospital Infection Control | Microbiology Division |
| 12 | CNE on critical care management | Department of Nursing |
| 13 | CNE on Early detection of cancer challenges | Department of Nursing |
| 14 | Nurses Day | Department of Nursing |
| 15 | World cancer day | Department of Nursing |
| 16 | eCare We care | Department of Palliative Medicine |
| 17 | World Blood Donors Day | Division of Transfusion Medicine |
| 18 | World no tobacco day | Department of Community Oncology |
| 19 | National cancer day observation | Department of Community Oncology |
| 20 | World Breast cancer Awareness day (Pink Ribbon day) | Department of Cancer Registry & Epidemiology |

ACCOUNTS 2015-16

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 2016, 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, 2016, 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 certain projects which are pending commencement/completion.
- c) We also draw attention to Note No 20(B)(4) regarding legal suits filed by some of land owners for enhanced compensation in respect of land acquired and handed over by the Government to the society.

Our opinion is not modified in respect of these matters

For VARMA & VARMA
(FRN: 0045325)


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

Place : Kannur

Date : 27/07/2017

MALABAR CANCER CENTRE SOCIETY, THALASSERY INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2016

| PREVIOUS YEAR | EXPENDITURE | CURRENT YEAR | PREVIOUS YEAR | INCOME | CURRENT YEAR |
|--------------------|--|--------------------|--------------------|---|--------------------|
| 135,472,998 | Pharmacy Consumption | 164,300,554 | 79,786,575 | Grant-in-aid - Revenue Grant | 91,074,215 |
| 118,588,998 | Salary, stipend, wages and allowances | 147,004,344 | 123,853,446 | Revenue from Hospital Operation | 156,761,169 |
| 4,807,304 | Employer's contribution to EPF | 7,087,592 | 149,973,032 | Pharmacy collection | 176,807,162 |
| 639,254 | Recruitment Expenses | 2,401,376 | 160,500 | Penal Liquidation charges received | 470,336 |
| 36,122,219 | Consumables/Other treatment expenses | 39,558,674 | 712,243 | Rental income | 819,811 |
| 12,636,418 | Energy charges | 15,742,402 | 2,836,900 | Income from Training & Teaching | 4,014,510 |
| 792,030 | Printing & Stationery | 876,391 | 2,484,886 | Donations & Contribution | 4,302,647 |
| 602,778 | Postage and telephone expenses | 630,064 | 522,225 | Income from Early Cancer Detection camp | 261,475 |
| 99,984 | Rates & Taxes | 89,603 | 25,360 | Income from Ambulance service | 67,650 |
| 912,089 | Travelling & Conveyance expenses | 1,007,612 | 14,522,492 | Interest income | 7,387,993 |
| 899,322 | Vehicle running & maintenance expenses | 1,091,166 | 2,103,888 | Other incomes | 3,831,226 |
| 2,498,282 | Repairs & Maintenance | 4,030,398 | 40,653,565 | Excess expenditure over income transferred to Balance Sheet | 50,477,512 |
| 5,244,417 | Security Service charges | 6,881,520 | | | |
| 5,340,420 | Cleaning & Laundry charges | 5,483,577 | | | |
| 329,976 | Subscription | 4,313,080 | | | |
| 2,062,119 | Free food to patients & bystanders | 2,695,407 | | | |
| 142,500 | Auditor's Fee | 174,800 | | | |
| 266,134 | Professional Charges | 84,955 | | | |
| 711,544 | Insurance charges | 704,000 | | | |
| 594,245 | Advertisement charges | 915,868 | | | |
| 5,088,186 | Annual maintenance contract charges | 9,296,041 | | | |
| 204,854 | Community Oncology expenses | 45,043 | | | |
| 46,000 | Affiliation & Registration fee paid | 283,000 | | | |
| - | Programme expenses | 257,458 | | | |
| 272,416 | Miscellaneous expenses | 491,827 | | | |
| 551,895 | Provision for doubtful debts/advances | 345,637 | | | |
| 82,708,730 | Depreciation written off | 80,483,317 | | | |
| 417,635,112 | | 496,275,706 | 417,635,112 | | 496,275,706 |

Place: Thalassery
Date: 21.07.2017

Vide our separate report of even date attached
For VARMA & VARMA
(FRN: 004532S)

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

MALABAR CANCER CENTRE SOCIETY, THALASSERY BALANCE SHEET FOR THE YEAR ENDED 31-03-2016

| PREVIOUS YEAR | CAPITAL & LIABILITIES | CURRENT YEAR | PREVIOUS YEAR | ASSETS | CURRENT YEAR |
|----------------------|--|----------------------|----------------------|----------------------------------|----------------------|
| 531,998,876 | CAPITAL FUND | 515,312,942 | 512,080,281 | FIXED ASSETTS | 478,640,370 |
| 469,742,806 | GRANT-IN-AID-CAPITAL GRANT (PENDING UTILISATION) | 541,506,476 | 60,851,741 | WORK IN PROGRESS UNDER PLAN FUND | 159,518,368 |
| 242,985,127 | ADVANCES & DEPOSITS | 258,533,101 | 8,885,999 | DEPOSITS AND ADVANCES | 9,520,547 |
| 77,880,963 | TRADE CREDITORS | 88,931,135 | 84,148,837 | TRADE DEBTORS | 204,101,315 |
| 591,473 | PATIENTS' WELFARE FUND | 371,670 | 53,064,350 | CLOSING STOCK | 51,908,150 |
| 1,307,208 | SEMINAR EXPENSES FUND | 114,910 | 607,216,617 | CASH & BANK BALANCES | 504,018,314 |
| 1,741,372 | OUTSTANDING LIABILITIES | 2,936,830 | | | |
| 1,326,247,825 | | 1,407,707,064 | 1,326,247,825 | | 1,407,707,064 |

Place: Thalassery
Date: 21.07.2017

Vide our separate report of even date attached
For VARMA & VARMA
(FRN: 004532S)

(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 2016.

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 recognized 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, MP-LAD 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

(8) REVENUE RECOGNITION:

Revenue is recognized on accrual basis except revenue due from inpatients as on 31.03.2016 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.

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 Rs113.27 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 certain projects which are pending commencement/completion. Necessary steps are being taken to commence the pending projects.

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: 11/21022194(506) / 2000-FCRA- 1Y dated 26104/2001 under section 6(1A) of Foreign Contribution (Regulation) Act 1976. However, no foreign contribution has been received as at the year ended 31-03-2016.
4. i) The Society is in possession of land acquired and handed over by the State Govt. for setting up the Cancer Centre. It is learned that some of the land owners have filed suits for enhanced compensation on land acquisition and the Sub Court, Thalassery has ordered enhancement of compensation in few cases. The Hon'ble Sub Judge of Thalassery, in respect of these cases, has directed The Special Tahsildar, Land Acquisition, Thalassery to attach some of the moveable properties of the Society due to not releasing the enhanced compensation. The Society has already filed a letter before The District Collector to release the amount of Rs.3.55 Lakhs towards the release of above said enhanced compensation. As the land was acquired by the State Government and the suits for enhanced compensations are filed against the State Government, in the opinion of the Society, no provision is required to be made in the books.

ii) Contingent Liability

| | |
|--|-----------------------------------|
| Claim for enhanced compensation towards the land allotted by Government of Kerala (Refer Note 4 (i) above) | Rs.3.55 Lakhs (Rs.11.62 Lakhs) |
|--|-----------------------------------|

5. 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 pending re-

ceivable under these welfare schemes shown in Note 8 include certain old outstanding balances. In the opinion of the Society, the said old outstanding amounts are fully receivable and hence no provision is required to be made in the books.

6. 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 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.

7. 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.

8. 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.

9. Previous year's figures have been regrouped / reclassified wherever necessary in order to suit current year's disclosure.

Place: Thalassery
Date:27/07/2017

For VARMA & VARMA
(FRN: 004532S)

(PRASANTH. D. PAI)
PARTNER
CHARTERED ACCOUNTANTS
MEMBERSHIP NO. 217750

PHOTO GALLERY



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:

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