

Curriculum

DNB Broad Specialty



Palliative Medicine

- ◆ Introduction
- ◆ Goals and Objectives of the Program
- ◆ Teaching and Training Activities
- ◆ Syllabus for DNB Palliative Medicine
- ◆ Competencies
- ◆ Log Book
- ◆ Recommended Text Books and Journals

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I. INTRODUCTION:

Palliative Medicine is a broad medical specialty that involves study and management of patients with active, progressive, far advanced disease, for whom the prognosis is limited and the goals and focus of care is relief of symptoms and quality of life.

The Indian Association of Palliative Care's (IAPC) definition of Palliative Care (Medicine) states that "Palliative Care is the active total care applicable from the time of diagnosis, aimed at improving the quality of life of patients and their families facing serious life-limiting illness, through the prevention and relief of suffering from pain and other physical symptoms as well as psychological, social and spiritual distress through socially acceptable and affordable interventions".

The key features of Palliative Medicine are, recognition and relief of pain and other symptoms, recognition and relief of psychosocial suffering, including care and support for families and caregivers, recognition and relief of spiritual / existential suffering, recognition of End-of-Life Care needs and provision of End-of-Life Care and Bereavement Support after death. Palliative Medicine is applicable to all life limiting conditions such as cancer, advanced HIV/AIDS, end stage organ failure, chronic neurodegenerative conditions etc. Palliative Medicine should be applied early and should be integrated to all health services.

DNB Specialist Training in Palliative Medicine involves 24 months' broad experience (Core Training) in Palliative medicine and 12 months focused experience (Non-Core Training) in cancer medicine, general medicine and related subspecialty and others. The goal of this training program is to provide competency-based training in symptom management, supportive care, awareness of a range of medical and non-medical options available for the disease management of palliative care patients, psychosocial support to patients and families, working in a multi-disciplinary / inter-disciplinary team, working in different clinical settings, communication skills, decision making skills, procedural skills relevant to Palliative Medicine, ethics based good practice, leadership, teaching and research.

II. GOALS AND OBJECTIVES OF THE PROGRAM:

1. CLINICAL SKILLS

- i. Comprehensive assessment and management of pain and physical symptoms
- ii. Comprehensive assessment and management of psychological, spiritual, and social issues
- iii. Communication skills in patients with advanced life limiting illness setting

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- iv. Disease management options available to patients with advanced life limiting illness in oncology and non-oncology
 - v. Identification of supportive care needs and understand
 - vi. Manage concurrent illness, co morbid conditions and complications
 - vii. Provide comprehensive end of life care management.
 - viii. Expert Clinical Decision-making skills with full understanding of the socio-cultural context of patients and families, their value system and beliefs
 - ix. Ethics based decision making and good clinical practice
 - x. Provide specialist palliative care across all age groups and clinical setting.

2. TEACHING SKILLS

- i. Relevance of topic and relevant literature review
- ii. Prepared and up to date with the topic
- iii. Clarity, Content and Presentation style
- iv. Engaging audience and answering questions
- v. Effectiveness and feedback evaluation

3. RESEARCH METHODOLOGY

- i. Understanding of evidence-based medicine
- ii. Understanding of types of research – Qualitative / Quantitative
- iii. Study design and statistical application
- iv. Good clinical practice in research
- v. Critical appraisal of Scientific literature and Scientific medical writing

4. GROUP APPROACH

- i. Work in a multidisciplinary / interdisciplinary team as a team member
- ii. Recognize contributions of other team members and involve them in care provision and co- ordination of care
- iii. Empower patients and their families facing life limiting/terminal illness
- iv. Recognize stress and burn and institutes mitigation measures and recognizes need for self-care
- v. Supervision, monitoring and leadership skills.

At the completion of the DNB Specialist Training Program in Palliative Medicine, as defined by this curriculum, it is expected that the postgraduate trainee will have acquired knowledge base, attitude and clinical skills required for competent palliative medicine practice.

It is expected that a trainee who has completed 3 years of specialist training and has passed the theory and practical examinations will be able to:

- a. Explain pathophysiological basis of pain and other physical symptoms, use appropriate clinical assessment methods, rationally choose required investigations and provide relief of pain and symptoms by pharmacological and non-pharmacological methods.
- b. Explain role of psychological, emotional, social, spiritual and existential issues in illness, suffering and symptom manifestations, able to assess these issues clinically using appropriate assessment methods and manage these issues by self, help of multi-disciplinary team and by referring to relevant specialists.
- c. Explain the experience of illness and suffering in the socio-cultural context of the patient and families. Able to understand the meaning of illness, its impact and consequences to patient and family.
- d. Able to make expert clinical decisions on symptom control, supportive care, options available for disease management, encourage shared decision making with full consideration of patient / families' preferences, value systems and beliefs and facilitate good clinical decision making.
- e. Able to provide good supportive care in patients with advanced life limiting illness and able to manage concurrent illness, complications, co morbid illness and emergencies
- f. Able to understand natural history of illness, illness trajectory and course, transition points and has complete knowledge of available disease management options relevant to a patient in Palliative Medicine setting.

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- g. Able to provide specialist palliative care in all clinical setting i.e. outpatients, ward, home, hospice and as consultation liaison
 - h. Able to recognize the terminal phase, recognize the dying process and end of life needs, participate in effective end of life decision making with colleagues / peers, communicate effectively with the family, plan and provide good end of life care.
 - i. Able to communicate with the family in a sensitive and emphatic manner, able to communicate bad news, able to deal with difficult and advanced communication situations. Able to communicate effectively with the peers, supervisors, and other members of the team.
 - j. Able to develop, maintain good rapport / therapeutic bonding with patients and families a relationship that is based on understanding, trust, empathy, and confidentiality.
 - k. Able to work as a member of the team in a multidisciplinary team, respect opinion of others, provide leadership and work in a coordinated manner to achieve common goal
 - l. Able to mentor and supervise junior doctors, maintain active interest in academics and exhibit high level of teaching
 - m. Able to undertake research in palliative care, conduct observation studies, RCT and clinical audits.
 - n. Able to manage human resource, financial, quality assurance, data management, and administrative aspects of his / her own practice or palliative care service. Able to allocate resources effectively.
 - o. Able to manage his / her own time and resources effectively in order to balance patient care, professional development, managerial and administrative duties, learning needs, and personal life.

III. TEACHING AND TRAINING ACTIVITIES:

1. **Formal Teaching** - All the postgraduate trainees pursuing DNB Palliative Medicine will undergo formal teaching at the departmental and institutional level. Given below is the Model Formal Teaching Schedule that can be modified by the individual institution to meet their requirement.

Teaching programs held on all working days 8:30 a.m. to 9:30 a.m.

Day	Duration	Activity
Monday	1 hour	Journal Club
Tuesday	1 hour	Didactic Lecture
Wednesday	1 hour	Subject Seminar
Thursday	1 hour	Hospital (Grand Rounds/Clinical meeting)
Friday	1 hour	Clinical Case Presentation

2. **Journal Club:** The trainee will present a journal article, either an original article (RCT / Systematic review) or a short study along with a review article. The trainee is expected to present the article citing the relevance, background / context, study methods and statistical analysis, interpret results and discussion, summarize, present limitation and critically analyze the study methods and outcomes.
3. **Didactic Lecture:** Invited Lectures on basic sciences, biostatistics, research methodology, teaching methodology, from external faculty of specialties related to the subject, medical ethics and legal issues related to Palliative Medicine practice etc. are conducted once a week.
4. **Subject Seminar:** The trainee will present a subject topic allocated after doing a comprehensive preparation, relevant literature searches and presents the topic in detail covering all the relevant aspects, clinical applications and engages audience and answers questions.
5. **Hospital Grand Rounds:** The trainee will attend the Hospital Grand Rounds weekly, which involves presentations from various specialties, related to Palliative Medicine.

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6. **Clinical Case Presentation:** Trainee will present a clinical case after performing thorough history and physical examination. Trainee will elicit physical and non-physical aspects in history, elicits all physical signs, formulates diagnosis / differential diagnosis and able to plan a comprehensive care plan for the patient.
 - i. **Bed Side Teaching** -All the postgraduate trainees pursuing DNB Palliative Medicine will carry out their clinical work under the supervision of Faculty / Senior Registrar. This involves around 2 hours of dedicated teaching ward rounds in the morning, and on the run teaching in outpatients, consultation liaison, home care, and hospice.
 - ii. **Additional Teaching / Training** - All the postgraduate trainees pursuing DNB Palliative Medicine are expected to attend regular CMEs, Conferences, Workshops; Small group teaching organized by local / national / international institutes and are required to be breast with the current knowledge and recent advances in the field of Palliative Medicine.
 - iii. **Clinical Postings** - All the postgraduate trainees pursuing DNB Palliative Medicine will undergo 3 years supervised specialist training in Palliative Medicine, which will comprise of 2 years of Core Training in the subject of Palliative Medicine and 1 year of Non-Core Training in the related subjects. The non-core-training period will not exceed 1 year.

Core Training – Year 1 and Year 3 – Description of Clinical Work in Palliative Medicine

Ward and Hospice	<ul style="list-style-type: none"> • Admit patient to the ward from out-patients, ED or community • Detailed medical assessment with a special focus on physical symptoms • Manage pain and other physical symptoms in a way that the patient has maximal comfort and dignity • Manage complications related to advanced progressive illness • Appropriate and relevant treatment of co-morbidities • Identify and manage palliative care emergencies • Undertake comprehensive psycho-social and family history and involve the medical social worker in the care planning • Document a detailed care planning and involve MDT members as appropriate
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	<ul style="list-style-type: none"> • Advance care planning and documentation of patient's goals of admission and care • Recognize and manage patient's psychological, emotional, spiritual and existential distress and seek help from the psychiatry team, medical social worker and chaplains. • Maintain good therapeutic relationships with patients and families; conduct regular family meetings and involve the patient and family in the ongoing care process. • Approach sensitively end of life care issues, discussions regarding resuscitation and facilitate the implementation of end of life care pathway. • Offer bereavement support to the families along with the bereavement social worker.
Consultation Liaison	<ul style="list-style-type: none"> • Offer palliative care consultation to patients referred by oncology and non- oncology sub-specialties • Participate in family meeting to facilitate smooth transition of care • Participate in discharge planning meeting to facilitate early home discharge and maintain continued care at home. • Participate in multidisciplinary team meetings • Liaise with psychiatry liaison registrar and specialty registrars.
Community Palliative Care	<ul style="list-style-type: none"> • Provide home based medical aspects of palliative care • Provide direction and supervision to community palliative care nurses • Liaise with general practitioners and locum doctors in providing effective, round the clock continued pain and symptom relief • Facilitate end of life care at home, initiate end of life care pathway and provide relief of end of life symptoms and enable patients with advanced life limiting illness to die at home. • Organize acute or respite hospital admissions from the community as and when needed.

<p>Outpatient Palliative Care</p>	<ul style="list-style-type: none"> • Receives referral from other specialist departments • Triage patient referral and plans appropriate site of care (Home, Hospital, Hospice etc.) • Assess and manages physical symptoms and psychological issues • Provides a follow-up plan and maintains continuity of care • Provides optimal supply of medications needed for symptom control until next follow up • Liaises with the family physician for out of hours' care and continued care in the community • Performs day care procedures like paracentesis, pleurocentesis and Nasogastric tube insertion • Liaise with the other related specialty for disease related and complication management • Liaise with social work and ancillary services for patient's physical, financial and social rehabilitation.
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Non-Core Training – Year 2 – Description of Clinical Work Roles, Responsibilities and Learning Objectives-

- a. Work in the respective unit as a resident in the respective medical specialty, subspecialty unit or department posted.
- b. Clerk new cases and discuss with the respective departmental registrar or consultant and plan appropriate management.
- c. Plan for investigations, rationally plan for investigations and able to interpret and apply results.
- d. Participate in ward, emergency, ICU and on call duties.
- e. Perform procedures in the respective department under supervision
- f. Participate in the respective departmental education and research activities

- g. Learn about application of Palliative Care in patients with advanced life limiting illness in respective specialty / department
- h. Learn about role of disease management strategies and supportive care in patients with advanced life limiting illness under palliative care follow-up
- i. Learn about provision of supportive care, managing co-morbid and concurrent illness and learn about managing complications and emergencies.
- j. Learn about specific rehabilitative and nursing procedures relevant to Palliative Medicine

iv. Clinical Postings

Year 1	Year 2	Year 3
Core Training	Non-Core Training	Core Training
Palliative Medicine – 12 Months (3 Months Each)	3 Months General Medicine	Palliative Medicine – 12 Months (4 Months Each)
<ul style="list-style-type: none"> • Outpatient Posting • Ward Posting • Consultation Liaison Posting • Hospice Posting 	3 MONTHS MEDICAL SUBSPECIALTY (6 Medical Subspecialty 15 Days Each) [Gastroenterology, Neurology, Nephrology, Pulmonology, Cardiology, Endocrinology]	<ul style="list-style-type: none"> • Outpatient Posting • Ward Posting • Consultation Liaison Posting
Once A Week Home Visit To Palliative Care Patients While Working In Ward And OPD	Pediatrics – 1 Month	
	Medical Oncology – 1 Month	
	Radiation Oncology – 1 Month	

Surgical Oncology – 15 Days
Radiology - 15 Days
Public Health – 15 Days
Rehabilitation – 15 Days
Chronic Pain – 15 Days
Psychiatry – 15 Days

IV. SYLLABUS FOR DNB PALLIATIVE MEDICINE:

Post-graduate Trainee Resident pursuing DNB (Palliative Medicine) course is expected to have in-depth knowledge of following subject topics. [CD=Cognitive Domain]

Section Cd1: Introduction To Palliative Medicine		
Sl. No	Topic	Essentials
Cd1.1 History Of Palliative Medicine		
1.1.1	History of Palliative Medicine	<ul style="list-style-type: none"> • Ancient history of hospice care • Dame Dr. Cicely Saunders and St. Christopher's Hospice History and philosophy of Hospice movement • Modern Hospice movement and evolution of palliative care • Evolution of Palliative Medicine • History of Indian Palliative Care movement

Cd1.2 Principles of Palliative Medicine		
1.2.1	Principles of Palliative Medicine 1	<ul style="list-style-type: none"> • Definitions (Palliative Care, Palliative Approach, Palliative Procedure, Generalist and Specialist Palliative Care) • Illness trajectories and stages • Understanding primary palliative care • Estimating the Palliative Care need • Cardinal concepts underlying the philosophy of Palliative Medicine • WHO Principles of Palliative Care • Holistic Care
1.2.2	Principles of Palliative Medicine 2	<ul style="list-style-type: none"> • Principle 1: Unit of care includes patient and his / her family • Principle 2: Symptoms must be routinely assessed and managed • Principle 3: Decisions regarding medical treatments must be made in an Ethical Manner • Principle 4: Palliative Care is provided through an Interdisciplinary Team • Principle 5: Palliative Care coordinates and provides for continuity of care • Principle 6: Dying is a normal part of Life, and Quality of Life is a central clinical goal • Principle 7: Palliative Care attends to Spiritual Aspects of patient and family distress and well-being • Principle 8: Palliative Care neither hastens death nor prolongs dying

		<ul style="list-style-type: none"> • Principle 9: Palliative Care extends bereavement support to patients & families • Principle 10: Palliative Care preserves and enhances the well-being of clinical and support staff and volunteers • Principle 11: Palliative Care engages in continuous Quality Improvement and research efforts • Principle 12: Palliative Care advocates for patients and families and advances Public Policy to improve access to needed services and Quality of Care
CD1.3 SPECIALITY OF PALLIATIVE MEDICINE		
1.3.1	Specialty of Palliative Medicine	<ul style="list-style-type: none"> • Levels of Care (Level 1-3) • Development of Palliative Medicine Specialty • Core competencies of a Palliative Medicine Physician • Specialist Palliative Medicine Service • CanMEDS Physician Competency Framework • How to avoid downsides involved in specialist training
CD1.4 MULTIDISCIPLINARY TEAM		
1.4.1	Multidisciplinary team 1	<ul style="list-style-type: none"> • Concept of Shared Care • Multidisciplinary and Interdisciplinary team • Role of a nurse in palliative care • Role of a medical social worker in palliative care • Role of occupational and physiotherapist in palliative care • Role of Consultant Psychiatrist / Clinical Psychologist / Counselor in palliative care • Role of nutritionist in palliative care

1.4.2	Multidisciplinary team 2	<ul style="list-style-type: none"> • Role of wound and stoma therapist in palliative care • Role of speech and language specialist • Role of volunteer in palliative care • Role of chaplain and spiritual care person in palliative care • Role of clinical pharmacist in palliative care • Role of music therapist / art therapist / play therapist • Role of yoga and complementary and alternative medicine specialist
CD1.5 MODELS OF PALLIATIVE CARE DELIVERY		
1.5.1	Models of Palliative Care Delivery 1	<ul style="list-style-type: none"> • Stjernswärd's Palliative Care for all Model • Early Palliative Care • Acute Palliative Care • Integrated model • Simultaneous and shared care model <p>(Description of model, mode of service delivery, advantages and disadvantages, evidence in literature)</p>
1.5.2	Models of Palliative Care Delivery 2	<ul style="list-style-type: none"> • In-patient palliative care unit • Hospice (Free standing unit) • Hospital palliative care team (consultation liaison service) • Community palliative care service (Home based palliative care) • Out-patient palliative care unit • Day palliative care unit <p>(Team composition, scope of service, skills, staffing, infrastructure, benefits, and disadvantages)</p>

CD1.6 RESEARCH IN PALLIATIVE MEDICINE		
1.6.1	Research in Palliative Medicine 1	<ul style="list-style-type: none"> • Scope of research in Palliative Medicine • Ethics of research in Palliative Medicine • Barriers for research in Palliative Medicine • Evidence based Palliative Medicine (Oxford CEBM levels of evidence, obtaining evidence, developing a citation database for review, Judging the quality of trials, Judging the quality of review, Critical evaluation of a RCT and systematic review) • Conducting a clinical trial in Palliative Medicine
1.6.2	Research in Palliative Medicine 2	<ul style="list-style-type: none"> • Writing a research protocol in Palliative Medicine (Identifying the research area, defining the clinical problem, literature review, formulating the research question, defining objectives and patient population, appropriate study design, methodology, outcomes to be measured, statistical consideration, interpretation of results and arriving at conclusion) • Qualitative research in Palliative Medicine Psycho- • Social research in Palliative Medicine
CD1.7 SERVICE AND RESEARCH INSTRUMENTS USED IN PALLIATIVE MEDICINE		
1.7.1	Tools / Instruments 1	<ul style="list-style-type: none"> • Tools / instruments measuring palliative care need • Broad multi-symptom assessment instruments • Performance status instruments • Pain assessment instruments • Instruments used to measure dyspnea • Instrument used to measure fatigue • Instruments measuring delirium • Instruments used for assessment of anxiety

		<ul style="list-style-type: none"> • Instruments used for measuring depression
1.7.2	Tools/Instruments 2	<ul style="list-style-type: none"> • Instruments measuring distress • Instruments measuring spiritual and existential distress • Instruments measuring coping and adaptation • Instruments measuring social issues • Instruments measuring caregiving issues • Instruments measuring family issues • Instruments measuring communication and satisfaction with care • Instruments measuring sexuality and intimacy • Instruments measuring pediatric aspects of advanced illness
CD1.8 ADVOCACY IN PALLIATIVE MEDICINE		
1.8.1	Advocacy	<ul style="list-style-type: none"> • Policy Advocacy (Advocating for Institutional, State / National palliative care Policy) • Capacity Building Advocacy (Advocacy for resources / funds to develop infrastructure needed for palliative care provision) • Drug Availability Advocacy (Advocacy for improving access to pain and symptom control drugs – Essential Medication List) • Education Related Advocacy

CD1.9 HEALTH POLICY AND PROGRAMS IN PALLIATIVE MEDICINE		
1.9.1	Policy, Programs and Regulations	<ul style="list-style-type: none"> • Maharashtra and Kerala State Palliative Care Policy • WHO Palliative Care Collaborating Centers and their activities • Network neighborhood in Palliative Care • National Palliative Care strategy for India • Narcotic Drugs and Psychotropic Substance (NDPS) Act and its amendments • Living will, Limiting life-sustaining treatment and Advanced Directives
CD1.10 QUALITY AND STANDARDS IN PALLIATIVE MEDICINE		
1.10.1	Quality and Standards	<ul style="list-style-type: none"> • Quality and Standards in Palliative Medicine • Classification and Types of Standards • Country specific International Standards for Palliative Care • End of Life Care Standards • The Gold Standards Framework • Clinical Practice Guidelines as applicable to Palliative Care
SECTION CD2: PALLIATIVE PHARMACOLOGY		
CD2.1 PAIN PHARMACOLOGY		
2.1.1	Non-steroidal anti-inflammatory drugs	<ul style="list-style-type: none"> • Cyclo-oxygenase (COX) pathway • Classification (Classification based on COX, Efficacy, Potency) • Pharmacokinetics • Type A and Type B reactions NSAIDS and organ system (Renal, Hepatic, Cardiovascular, Gastrointestinal, Lung,

		<p>Platelets, Bone, Genitourinary)</p> <ul style="list-style-type: none"> • Individual pharmacology of commonly used NSAIDs (Aspirin, Diclofenac, Paracetamol, Ibuprofen, Ketorolac, Oxicams, Etorocoxib) • Rational NSAID prescription • Safe NSAID prescription
2.1.2	Opioids 1	<ul style="list-style-type: none"> • Opioid@s definitions • Opioid receptors • Opioid classification (Chemical and Receptor based classification) • Opioid metabolism and metabolites • Pharmacokinetics • Opioid use in renal and hepatic impairment • Common adverse effects of opioids and its management • Systemic effects of long-term opioid use (opioid toxicity – identification and management) • Opioids induced respiratory depression • Opioids induced hyperalgesia
2.1.3	Opioids 2	<ul style="list-style-type: none"> • Opioid potency and conversion tables • Opioid rotation • Individual pharmacology of weak opioids (Codeine, Tramadol, Tapentadol,

		<p>Dextropropoxyphene)</p> <ul style="list-style-type: none"> • Individual pharmacology of strong opioids (Morphine, Fentanyl, Buprenorphine, Oxycodone, Hydromorphone) • Initiating a patient on strong opioids and titration of dose • Using strong opioids - Instructions to patients and caregivers
2.1.4	Adjuvant Analgesics 1 (Adjuvants used in neuropathic pain)	<ul style="list-style-type: none"> • Anti-depressants (TCAs and SSRIs) • Anti-epileptics • Anti-arrhythmic (Na Channel Blockers) • NMDA Receptor antagonists • K Channel openers • Drugs causing activation of GABA inhibitory and Glutamate excitatory system • Corticosteroids • Neuropathic Pain Step Ladder

2.1.5	Adjuvant Analgesics 2	<ul style="list-style-type: none"> • Adjuvant analgesics used in bone pain (Dexamethasone, Calcitonin, Bisphosphonates) • Adjuvant analgesics used in GI pain (Hyoscine, Dicyclomine, Octreotide) • Adjuvant analgesics used in genitourinary pain (Oxybutynin, Tolterodine, Solifenacin, Phenazopyridine, Propantheline, Tamsulosin, Flavoxate) • Adjuvants in myofacial pain and muscle spasms (Baclofen, Flupirtine, Eperisone, Tolperisone, Thiocolchicoside)
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CD 2.2 PHARMACOLOGY OF DRUGS USED IN NAUSEA, VOMITING, CONSTIPATION

2.2.1	Nausea and Vomiting 1	<ul style="list-style-type: none"> • Physiology of nausea and vomiting • Emesis pathway • Physiology of vomiting centers • Receptors and neurotransmitters involved in Nausea and Vomiting • Classification of anti-emetics (Central and GIT) • Receptor sites and affinities of anti- emetics • Classification of prokinetics based on receptor action • Pharmacological management of chemotherapy and radiotherapy induced nausea and vomiting.
2.2.2	Nausea and Vomiting 2	<ul style="list-style-type: none"> • Detailed pharmacology of individual drugs used in nausea and vomiting (Metoclopramide, Domperidone, 5HT3 antagonists) • Anti-histaminic Anti-muscarinic drugs in nausea and vomiting

		<ul style="list-style-type: none"> • Psychotropic drugs in nausea and vomiting • Miscellaneous drugs in nausea and vomiting (Corticosteroids, Benzodiazepines, Cannabinoids, NK receptor antagonists)
2.2.3	Constipation	<ul style="list-style-type: none"> • Classification of aperients (Laxatives) • Detailed pharmacology of commonly used drugs (Docusate, Bisacodyl, Lactulose, Macrogol, Senna, Magnesium compounds, Methyl Naltrexone) • Rectal products (Suppositories, Micro and Standard Enema) • Pharmacological management of opioid induced constipation • Pharmacological management of constipation in paraplegia/quadriplegia • Common drugs used in diarrhea.
CD2.3 CARDIOVASCULAR, RESPIRATORY AND CNS DRUGS IN PALLIATIVE CARE		
2.3.1	Cardiovascular	<ul style="list-style-type: none"> • Diuretics • Optimizing and stopping cardiovascular drugs in palliative phase of illness trajectory • Pharmacological management of cancer thrombosis, deep venous thrombosis and pulmonary embolism
2.3.2	Respiratory	<ul style="list-style-type: none"> • Oxygen and intermittent / long term oxygen therapy in palliative care / oxygen delivery systems • Bronchodilators (oral / parenteral / inhaled) • Drugs used in management of dyspnea • Drugs used in management of cough • Drugs used in management of respiratory secretions

2.3.3	CNS (Anxiolytics, Anti-depressants and Anti- psychotics)	<ul style="list-style-type: none"> • Benzodiazepines in palliative care practice (classification, pharmacology of individual drugs, rational usage) • Prescribing anti-depressants in palliative care practice (commonly used drugs and their pharmacology) • Drugs used in delirium (typical and atypical anti-psychotics) • Drugs used in managing terminal restlessness (step ladder and pharmacology of drugs used in terminal sedation)
CD2.4 TOPICAL AGENTS USED IN PALLIATIVE MEDICINE		
2.4.1	Topical Agents	<ul style="list-style-type: none"> • Topical agents used for dry mouth, excessive salivation, mucositis, aphthous ulcers, oral candidas • Topical agents for managing dry skin, pruritus, pressure sores, non-healing / foul smelling / bleeding wounds • Topical anal preparations • Topical eye preparations
CD2.5 DRUG INTERACTIONS IN PALLIATIVE MEDICINE		
2.5.1	Drug Interactions	<ul style="list-style-type: none"> • Serotonin syndrome QT prolongation • Drug induced movement disorders Synergistic sedation • Metabolic interactions (Cytochrome P450) Pharmacokinetic interactions
CD2.6 PARENTERAL ANALGESIC PREPARATIONS		
2.6.1	Parenteral analgesic infusions	<ul style="list-style-type: none"> • Preparing analgesic infusions (non-opioids, weak opioids, strong opioids) • Syringe driver preparations • Syringe driver compatibility and interactions / CADD PUMP and infusion systems • Managing a patient on syringe driver • Drugs used in epidural and intrathecal analgesia

CD2.7 PRESCRIBING PALLIATIVE DRUGS IN SPECIAL SITUATIONS		
2.7.1	Palliative drugs in special situations	<ul style="list-style-type: none"> • Palliative drugs in renal dysfunction • Palliative drugs in hepatic dysfunction • Palliative drugs in a patient with cardiovascular morbidity • Palliative drugs in children • Palliative drugs in elderly • Palliative drugs in cognitive impairment
SECTION CD3: SYMPTOM CONTROL IN PALLIATIVE MEDICINE		
CD3.1 PAIN		
3.1.1	Introduction to Pain	<ul style="list-style-type: none"> • Pain definition(s) • Pain taxonomy • Pain classification(s) • Acute / chronic / cancer pain - approach and differences • Breakthrough pain • Pain Crisis • Emory pain estimate model • General principles involved in managing a patient with pain in a palliative care setting
3.1.2	Mechanism of Pain 1	<ul style="list-style-type: none"> • Anatomy of pain pathway • Peripheral and spinal pain mechanisms: <ul style="list-style-type: none"> ◦ Nociception and anti - nociception ◦ Nociceptors • Transduction of nociceptive pain • Transmission of nociceptive pain • Modulation of nociceptive pain • Perception of nociceptive pain
3.1.3	Mechanism of Pain 2	<ul style="list-style-type: none"> • Nerve injury • Peripheral and central sensitization • Modulation in neuropathic pain • Pathophysiological basis of hyperalgesia / allodynia • Structural anatomy of bone in relation to

		<p>malignant bone pain</p> <ul style="list-style-type: none"> • Pathophysiological mechanisms involved in malignant bone pain
3.1.4	Assessment of Pain	<ul style="list-style-type: none"> • Medical evaluation of a patient with pain • Measurement of pain and pain assessment tools – both nociceptive and neuropathic • Role of investigations / imaging in pain patients • Total pain –psychological / psychosocial evaluation in pain • Evaluation of pain associated impact and disability
3.1.5	Cancer Pain Syndromes	<ul style="list-style-type: none"> • Cancer related acute pain situations (Diagnostic / Therapeutic interventions, anti-cancer therapy, complications) • Cancer related chronic pain situations (Direct tumor related, anti- cancer therapy, complications, Paraneoplastic) • Familiarity with the psychological methods in managing pain
3.1.6	Cancer Associated Nociceptive Pain	<ul style="list-style-type: none"> • Visceral pain syndromes • Genitourinary pain syndromes • Vascular pain syndromes • Cancer related headache and facial pain • Paraneoplastic nociceptive pain syndromes • Lymphedema associated pain • Inflammation/infection associated pain
3.1.7	Malignant Bone Pain	<ul style="list-style-type: none"> • Bone pain syndromes • Pain in vertebral and long bone metastasis Mirels scoring system • Imaging modalities in bone pain,

		Management of bone pain (Analgesic step ladder, Bisphosphonates, Calcitonin, Radiotherapy, Radioisotopes, closed and open surgical interventions, chemo/hormonal and targeted therapy)
3.1.8	Cancer Associated Neuropathic Pain	<ul style="list-style-type: none"> • Direct nerve injury (all plexopathies, painful mononeuropathy, Paraneoplastic sensory neuropathy, Malignant painful radiculopathy, Painful cranial neuralgias) • Cancer treatment associated nerve toxicity(chemotherapy / RT associated neuropathy) • Surgical neuropathies (Phantom limb, postmastectomy / post thoracotomy syndromes) • Current guidelines for neuropathic pain management
CD3.2 GASTROINTESTINAL SYMPTOMS		
3.2.1	Nausea and Vomiting	<ul style="list-style-type: none"> • Definitions and Epidemiology • Etiological classification of Nausea and Vomiting in Palliative Care • Approach to a patient with Nausea and Vomiting • Opioid induced Nausea and Vomiting • Chemotherapy induced Nausea and Vomiting • Radiotherapy induced Nausea and Vomiting • Etiology specific rational management of nausea and vomiting.
3.2.2	Constipation and Diarrhea	<ul style="list-style-type: none"> • Comprehensive Definition / Classification • Etiology of constipation in a palliative care setting • Clinical approach and rectal examination • Constipation assessment scales • Principles of managing constipation and pharmacological approach • Opioid induced constipation

		<ul style="list-style-type: none"> • Managing constipation in a patient with paraplegia • Assessment and management of diarrhea in palliative care practice
CD3.3 RESPIRATORY SYMPTOMS		
3.3.1	Dyspnea	<ul style="list-style-type: none"> • Prevalence of dyspnea in life limiting conditions • Pathophysiology of dyspnea • Physiological classification of dyspnea in PC • Assessment of dyspnea (Quality, Intensity, Impact, Distress) • Four quadrant approach in management of dyspnea (Medical, Rehab, Palliative and End of Life Model) • Palliative Pharmacology of Dyspnea • Morphine in Dyspnea • Oxygen in Dyspnea • Non-Pharmacological management of Dyspnea • Palliative Sedation in Intractable Dyspnea
3.3.2	Cough, Hemoptysis Respiratory Secretions, Bronchorrhea	<ul style="list-style-type: none"> • Cough (Pathway, causes of cough in PC setting, Non Pharmacological management, Pharmacological treatment, Management of Refractory Cough) • Hemoptysis (Classification – Minimal, Active, Massive, Pseudo) • Hemoptysis (Causes in PC setting, Assessment, Non Pharmacological management, Pharmacological treatment, Interventions) • Palliation of Massive Hemoptysis • Respiratory secretions (Prevalence, Classification, Presentation, Non Pharmacological management, Pharmacological treatment) • Bronchorrhea (Prevalence, Clinical features, Management)

CD3.4 CNS SYMPTOMS		
3.4.1	Delirium	<ul style="list-style-type: none"> • Understanding consciousness (Awakeness, Awareness and Alertness) • Neurophysiology of Delirium • Epidemiology and risk factors • Clinical features • Tools used in Delirium Assessment • Bedside assessment of Delirium • Delirium types (Hypoactive/Hyperactive/Mixed) • Differential Diagnosis • Management of Delirium includes correcting the underlying cause of delirium where possible (Risk assessment, Prevention, Education, Safety, Non Pharmacological treatment, Pharmacological treatment) • Management of agitation associated with delirium including use of chemical and physical restraints • Terminal Delirium
CD3.5 MISCELLANEOUS SYMPTOMS		
3.5.1	Miscellaneous symptoms 1 (Hiccoughs, Pruritus, Sweats, Dysphagia)	<ul style="list-style-type: none"> • Hiccoughs (Definition, Classification, Hiccoughs pathway, Etiology in palliative care setting, Non pharmacological and pharmacological management, treatment of refractory hiccoughs) • Pruritus – <ul style="list-style-type: none"> o(Classification based on duration, Etiology, clinical presentation) o(Pruritus pathway, chemical mediators, causes and mechanism) o(Overall management and classification of drugs used in pruritus) o(Pharmacological and non-pharmacological management each type) • Sweats (Etiology, Assessment and Management)

3.5.2	Miscellaneous symptoms 2 (Fatigue and Edema)	<ul style="list-style-type: none"> • Etiology of fatigue in a PC setting • Pathophysiological mechanisms of fatigue • Clinical assessment and Tools used in Fatigue Assessment • Non pharmacological and pharmacological management of fatigue • Edema in PC setting • Assessment and Management of Edema (excluding Lymphedema)
SECTION CD4: PALLIATIVE MEDICINE IN AN ONCOLOGY SETTING		
CD4.1 BASICS OF ONCOLOGY		
4.1.1	Cancer Epidemiology	<ul style="list-style-type: none"> • Cancer trends in India (Incidence and Mortality) • Cancer etiology, risk factors and risk assessment (Tobacco, Infections, Diet, Life style, Physical and Chemical factors) • Hereditary and Familial Cancer Syndromes
4.1.2	Cancer Biology and Natural History of Cancer	<ul style="list-style-type: none"> • Cancer Hallmarks (Tumor Biology, Cell cycle, Apoptosis, Cancer Stem cells, Proto-oncogenes, Tumor suppressor genes, Angiogenesis, Invasion and Metastasis) • Cancer Genetics
4.1.3	Principles of Anticancer Therapy	<ul style="list-style-type: none"> • Classification, pharmacokinetics and pharmacodynamics of anticancer drugs • Indications, dose/dose schedules, toxicity of commonly used anti- cancer drugs • Principles, uses and pharmacology of drugs used in hormone therapy

4.1.4	Palliative Surgery	<ul style="list-style-type: none"> Principles of palliative surgery in oncology setting Indications, morbidities of palliative surgery in individual cancer Common palliative surgery procedures (Colostomy, Ileostomy, Gastrostomy, Urinary diversion procedures, Tracheostomy, Stenting, ERCP/PTBD and other interventional surgical/radiological procedures) Orthopedic surgeries in palliative care.
4.1.5	Palliative Chemotherapy	<ul style="list-style-type: none"> Principles of Cancer Chemotherapy and Palliative Chemotherapy Definition, Principles of Adjuvant and Neoadjuvant chemotherapy Indications, principles and use of metronomic chemotherapy
4.1.6	Palliative Radiotherapy	<ul style="list-style-type: none"> Principles of Palliative Radiotherapy Role of RT in brain and malignant spinal cord compression Role of RT in skeletal metastasis Role of RT in visceral and soft tissue metastasis Role of RT in Hemostasis, Analgesia and management of Obstructive symptoms
CD4.2 PALLIATIVE MANAGEMENT OF COMMON CANCERS		
4.2.1	Head and Neck, Brain and Thoracic cancers	<ul style="list-style-type: none"> Stage-wise management of head and neck cancers Palliative RT and metronomic chemotherapy in Palliative / Advanced Head and Neck Cancers Management of low grade and high grade brain tumors Role of Palliative RT in patients with GBM with low KPS / Management of brain stem gliomas and recurrent brain tumors Palliative management of advanced

		<p>esophageal cancers and palliative treatment of dysphagia</p> <ul style="list-style-type: none"> • Palliative management of advanced lung cancers
4.2.2	Breast and Genito-urinary cancers	<ul style="list-style-type: none"> • Stage-wise management of breast cancer • Palliative management of advanced breast cancer • Treatment algorithm of common genito-urinary cancers • Palliative RT for advanced genito-urinarycancers • Palliative chemotherapy for advanced genito-urinary cancers • Palliation of obstructive Uropathy
4.2.3	GIT Cancers including Hepatobiliary	<ul style="list-style-type: none"> • Stage-wise management of GIT / Hepatobiliary cancers • Palliative RT indications and schedules in advanced GI cancer • Palliative chemotherapy for advanced GI / Hepatobiliary cancers • Palliation of bleeding, obstructive jaundice, malignant ascites
4.2.4	Pediatric cancers, soft tissue tumors, leukemia and lymphoma	<ul style="list-style-type: none"> • Treatment algorithms for common pediatric cancers • Palliative chemotherapy regimens for advanced / relapse and recurrent pediatric solid tumors, lymphomas and leukemia • Palliative RT indications and schedules In pediatric solid tumors and lymphomas

CD4.3 CANCER COMPLICATIONS AND ONCOLOGICAL EMERGENCIES

4.3.1	Neurological Complications and Emergencies 1	<ul style="list-style-type: none"> • Malignant Spinal Cord Compression • Anatomy of Spinal Cord • Epidemiology, Types, Frequency • Clinical presentation • Investigations • Conservative Management • RT/Surgery and other interventions • Prognostication • Evidence base for each intervention
4.3.2	Neurological Complications and Emergencies 2	<ul style="list-style-type: none"> • Status Epilepticus • Brain Metastasis • Raised Intracranial Pressure (Cerebral Edema) • Encephalopathy (Structural, Metabolic, Septic)
4.3.3	Hematological and Vascular Complications and Emergencies	<ul style="list-style-type: none"> • Malignant SVC Obstruction • Deep venous thrombosis and Pulmonary Embolism • Hemorrhage • Tumor Lysis Syndrome • Neutropenic sepsis
4.3.4	Gastrointestinal, Thoracic, Genitourinary, Bone and other Complications and Emergencies 1	<ul style="list-style-type: none"> • Malignant Bowel Obstruction (MBO) • Physiologic reactions to Malignant Bowel Obstruction • Etiological of bowel obstruction in a patient with advanced cancer • Approach to a patient with bowel obstruction • Proximal versus Distal Bowel obstruction • Rationally investigating a patient with MBO • When to consider conservative management in MBO • Principles and steps involved in conservative management of MBO • Pharmacology of drugs used in MBO • Interventional techniques in MBO • Nutrition in MBO • Prognostication in MBO

4.3.5	Gastrointestinal, Thoracic, Genitourinary, Bone and other Complications and Emergencies 2	<ul style="list-style-type: none"> • Malignant Ascites • Malignant Pleural and Pericardial Effusion • Obstructive Uropathy • Pathological fractures • Airway obstruction and Stridor • Managing Pain Crisis • Managing Opioid Overdose
SECTION CD5: PALLIATIVE MEDICINE IN A NON-ONCOLOGY SETTING		
CD5.1 END STAGE ORGAN FAILURE		
5.1.1	End stage Chronic Lung Disease (CLD)	<ul style="list-style-type: none"> • Defining End Stage COPD • Symptomatology of end stage COPD • Initiation of palliative medicine in end stage COPD (Gold Standards Framework) • 4 quadrant approach (Medical, Rehab, Palliative and EOLC) • Dyspnea management stepladder • Medical and Rehab models • Palliative Model (Pharmacological / Non pharmacological) • Opioids in Dyspnea (Mechanism/dose/evidence) • Guidelines for initiating EOLC model in end stage COPD • EOLC in end stage COPD • Palliative Sedation in refractory dyspnea
5.1.2	End stage Congestive Heart Failure (CHF)	<ul style="list-style-type: none"> • Defining end stage cardiac failure • Illness trajectory and various trajectory models • Heart failure stages as relevant to palliative care • Symptomatology of CHF • Initiating palliative medicine in end stage CHF • Triggers for palliative medicine referrals • Guidelines for palliative medicine referral • Palliative approach in end stage CHF • EOLC in CHF

5.1.3	Chronic Kidney Disease (CKD) and End Stage Renal Disease (ESRD)	<ul style="list-style-type: none"> • Defining CKD and ESRD • Burden of ESRD • Symptom burden of ESRD • Management of pain in patients with ESRD • Managing non-pain symptoms in ESRD • Non dialysis supportive care approach in CKD / ESRD • Managing end of life in patients on dialysis • Guidelines / recommendations for not initiation / withdrawal of dialysis
5.1.4	End Stage Liver Disease (ESLD)	<ul style="list-style-type: none"> • Defining ESLD • Symptom burden in ESLD and management of ESLD symptoms • EOL transitions in ESLD (Child Pugh[®] / MELD scoring) • Prognostication in ESLD • Palliative and EOLC approach in ESLD
5.1.5	Palliative Neurology 1 (Symptoms and Impairment)	<ul style="list-style-type: none"> • Specific symptoms in advanced neurological illness (Muscular weakness, spasticity, dystonia, seizures, muscle cramps, involuntary movements, dyskinesia) • Management of impairments secondary to advanced neurological illness (speech difficulty, dysphagia, drooling of saliva, breathing difficulty, urinary retention, bladder spasms, bowel and bladder incontinence, sexual dysfunction, autonomic dysfunction)
5.1.6	Palliative Neurology 2 (Motor Neuron Disease)	<ul style="list-style-type: none"> • Classification • Clinical Presentation • Symptom prevalence in MND • Etio-pathogenesis, impact and management of dysarthria • Management of dysphagia and Sialorrhea • Pain in MND (Etiopathogenesis and Management) • Dyspnea in MND (Management, Non-invasive ventilation, weaning of respiratory support)

		<ul style="list-style-type: none"> • Interdisciplinary care in MND • End of Life Care in MND
5.1.7	Palliative Neurology 3 (Other neurological conditions needing Palliative Care)	<ul style="list-style-type: none"> • Palliative Care in cerebrovascular disease • Palliative Care in demyelinating disease • Palliative Care in Parkinson's disease • Palliative Care in Muscular dystrophy • Palliative Care in Huntington's disease • Palliative Care in traumatic and hypoxic brain injury • Palliative care in congenital and acquired peripheral neuropathy
CD5.2 PALLIATIVE MEDICINE IN HIV/AIDS		
5.2.1	Palliative Medicine in HIV AIDS 1	<ul style="list-style-type: none"> • HIV infections and AIDS (Epidemiology, Biology, Natural History, Pathogenesis, Phases) • Clinical Course of AIDS • AIDS Defining Complex • Anti-retroviral therapy • Infections in an immunocompromised patient • Non infective complications of HIV/AIDS
CD5.3 PALLIATIVE MEDICINE IN DEMENTIA		
5.3.1	Palliative Medicine in Dementia 1	<ul style="list-style-type: none"> • Epidemiology of Dementia Pathophysiology and classification Alzheimer's Disease Frontotemporal Dementia • Lewy Body Dementia • Dementia in Parkinson's disease • Dem due to Huntington's disease • Vascular Dementia • HIV associated Dementia
CD 5.4 MISCELLANEOUS NON ONCOLOGICAL CONDITIONS		

5.4.1	Palliative Medicine in Hematological Disorders	<ul style="list-style-type: none"> • Challenges and barriers in PC provision in incurable benign hematological disorders • Palliative Care in Sickle Cell Disease (Inheritance, Clinical presentation, symptoms, needs, communication and long-term management) • Palliative Care in Thalassemia Major (Inheritance, Clinical presentation, symptoms, needs, communication and long-term management) • Palliative Care in other congenital hematological disorders (both anemia and bleeding diathesis)
5.4.2	Palliative Medicine in Immunological Disorders	<ul style="list-style-type: none"> • Palliative Care in advanced Vasculitis Palliative Care in malignant course of Rheumatoid Arthritis • Palliative care in advanced stages of connective tissue disorders such as Systemic Lupus Erythematosus, Progressive Systemic Sclerosis, Mixed Connective Tissue Disorder, and Sjogren's syndrome etc. • Palliative Care in Progressive Pulmonary Fibrosis
5.4.3	Palliative Medicine in congenital and post traumatic disability	<ul style="list-style-type: none"> • Technical definitions - Disability, Impairment, activity limitation, participation restriction • Classification of disabilities • Interphase of Rehabilitation and PC in a patient with disability • Palliative care for a patient with traumatic paraplegia and quadriplegia • Palliative care for a patient with traumatic brain injuries, persistent vegetative states • Palliative Care in congenital disabilities

5.4.4	Palliative Medicine in MDR and XDR Tuberculosis	<ul style="list-style-type: none"> • Criteria for diagnosing MDR and XDR TB • Clinical presentation, symptoms, and complications • Pharmacological management of MDR and XDR TB • Palliative Care and End of Life Care needs in MDR XDR TB • Geneva Declaration of Palliative Care and MDR/XDR-TB
SECTION CD6: SUPPORTIVE CARE IN PALLIATIVE MEDICINE		
CD6.1 MANAGING COMMON COMPLICATIONS IN A PALLIATIVE MEDICINE SETTING		
6.1.1	Dehydration and Shock	<ul style="list-style-type: none"> • Approach to a patient with shock • Hypovolemic shock diagnosis and management • Differentiating types of shock • Types of resuscitation fluids, its constituents and rational use •
6.1.2	Fever and Sepsis	<ul style="list-style-type: none"> • Various definitions used in the diagnosis of sepsis • Fever – Types of fever • Bacteremia, Septicemia, SIRS, Sepsis, Severe Sepsis, Septic Shock, Refractory Septic Shock, MODS • Approach to a patient with sepsis • Complications of sepsis • Managing a patient with sepsis (investigations + treatment) • Rational use of broad-spectrum antibiotics
6.1.3	Anemia and Transfusion	<ul style="list-style-type: none"> • Anemia in advanced illness: prevalence, significance, and causes • Approach to a patient with anemia of chronic disease and cancer • Approach and diagnostic modalities • Role of iron supplements • Role of erythropoiesis stimulating agents

		<ul style="list-style-type: none"> • Blood and component transfusion • Assessment of fatigue and symptom benefit post blood transfusion • Decision making on withholding transfusion
6.1.4	Anorexia-Cachexia Syndrome (ACS)	<ul style="list-style-type: none"> • Definition and classification of ACS Etiology of ACS in a Palliative Care setting • Pathogenesis of primary and secondary ACS Diagnosis, Clinical Presentation, and stages Clinical assessment of ACS • Pharmacological management of ACS Nutrition in ACS
6.1.5	Thrombotic disorders in Palliative Medicine	<ul style="list-style-type: none"> • Cancer associated thrombosis (pathophysiology + approach) • Swollen legs in a palliative care setting (differentiating venous thromboembolism [VTE] from others) • Recognition, confirmation and management of VTE • Guidelines on using anti-coagulants in VTE – how long / how to monitor / when to discontinue • Special situations – SVC thrombosis, portal venous thrombosis, cavernous venous thrombosis
CD6.2 MANAGING CONCURRENT ILLNESS IN A PALLIATIVE MEDICINE SETTING		
6.2.1	Electrolyte Imbalance 1 Hyponatremia , Hypernatremia	<ul style="list-style-type: none"> • Approach to a patient with hyponatremia • Hypovolemic hyponatremia • Euvolemic hyponatremia • Hypervolemic hyponatremia • Treatment of hyponatremia (using 3% saline and pharmacotherapy of hyponatremia) • Approach to a patient with hypernatremia • Treatment of hypernatremia
6.2.2	Electrolyte Imbalance 2 Hypokalemia, Hyperkalemia	<ul style="list-style-type: none"> • Potassium homeostasis Hypokalemia – Definition, Etiology, Diagnostic approach / algorithm, Management (Pharmacological / Non-Pharmacological) • Hyperkalemia - Definition, Etiology, Diagnostic

		<p>approach / algorithm, Management (Pharmacological / Non- Pharmacological)</p> <ul style="list-style-type: none"> • Hyper and hypokalemia in a palliative care setting
6.2.3	<p>Electrolyte Imbalance 3 Hypocalcemia, Hypercalcemia Hypomagnesaemia, Hypomagnesaemia</p>	<ul style="list-style-type: none"> • Calcium and Magnesium Homeostasis - • Definition, Etiology, Diagnostic approach / algorithm • Management (Pharmacological / Non- Pharmacological) • Specific clinical / laboratory diagnostic tests • Prevention • Relevance in a palliative care setting of: Hypocalcemia / Hypercalcemia / Hypomagnesaemia /Hypomagnesaemia
6.2.4	<p>Acid-Base Disorders Fluids</p>	<ul style="list-style-type: none"> • General principles of acid-base balance • Definitions and Stepwise approach • Estimating compensatory responses to primary acid-base disorder • Differential diagnosis • Metabolic acidosis • Metabolic alkalosis • Respiratory acidosis • Respiratory alkalosis • Types of Intravenous fluids • Rationale use of fluids
6.2.5	<p>Urinary Tract Infections</p>	<ul style="list-style-type: none"> • Definitions (Asymptomatic bacteruria, Uncomplicated UTI, Complicated UTI) • Risk factors • Symptoms and approach to a patient with complicated UTI • Prevention and management of complicated UTI • Catheter associated UTI (prevention and management + IDSA guidelines) • Antimicrobials in prevention and treatment of UTI as per current guidelines • Collecting specimens in UTI

6.2.6	Respiratory Tract Infections	<ul style="list-style-type: none"> • Aspiration pneumonia (risk factors, diagnosis, treatment) • Community Acquired Pneumonia in a patient advanced illness (microbial patterns, diagnosis, treatment) • Pseudomonas Bronchopulmonary infections • Acute exacerbation of COPD • Viral and fungal lung infections • Severe and Critical COVID illness
6.2.7	Gastrointestinal and Hepatobiliary infections	<ul style="list-style-type: none"> • Approach to a patient with diarrhea • Common GI infections in patients with advanced illness (bacterial/viral/parasitic) [approach + diagnosis + treatment] • Hepato-biliary infections (Cholangitis, Hepatitis, Liver abscess) • Peritonitis • Bacterial infections of the oral cavity • Oral and pharyngeal candida
6.2.8	Skin and soft tissue infections CNS Infections	<ul style="list-style-type: none"> • Infected pressure sore • Infected ulcers / wounds • Cellulitis • Lymphangitis Herpes • Zoster • Meningitis / Meningoencephalitis
CD6.3 MANAGING COMORBID ILLNESS IN A PALLIATIVE MEDICINE SETTING		
6.3.1	Co morbid illness 1	<ul style="list-style-type: none"> • Guidelines for management of Diabetes Mellitus in Palliative Medicine setting • Blood sugar control based on prognosis (years, months, days) • Diabetes Mellitus management in End of Life phase • Pharmacological management in Type 1 and Type 2 Diabetes Mellitus • Insulin preparations – choices, using a sliding scale • Managing corticosteroids induced Diabetes Mellitus

		<ul style="list-style-type: none"> • Management of Diabetic Ketoacidosis and Non Ketotic Hyperosmolar state • Recognition and management of Hypoglycemia
6.3.2	Co morbid illness 2	<ul style="list-style-type: none"> • Optimizing hypertension management and anti-hypertensive choice in palliative care setting • Optimizing ischemic heart disease management and rationalizing use of cardiac drugs and diuretics • Optimizing dyslipidemia and rationalizing use / stopping of lipid lowering drugs • Optimizing use / stopping of anti-platelet drugs and anti- coagulants • Management of other co-morbid illnesses such as (Bronchial Asthma, COPD, Hypothyroidism, Rheumatoid Arthritis etc.)
SECTION CD7: PSYCHOSOCIAL ISSUES IN PALLIATIVE MEDICINE		
CD 7.1 ILLNESS EXPERIENCE AND SUFFERING		
7.1.1	Illness, Suffering and Psychological issues of dying	<ul style="list-style-type: none"> • Human experience of illness • Psychological response to illness • Defining and understanding suffering • Triangular model of suffering • Dimensions of patient distress / suffering in a life limiting illness context • Dimensions of family distress / suffering in a life limiting illness context

7.1.2	Defense mechanisms and Coping Strategies	<ul style="list-style-type: none"> • Unhealthy Defense Mechanisms – Neurotic Defenses (Repression, Displacement, Reaction formation, Intellectualization and Rationalization) • Unhealthy Defense Mechanisms – Immature Defenses (Denial, Splitting, Idealization, Devaluation, Projection, Projective Identification, Acting out and Passive aggression) • Healthy Defense Mechanisms – Mature defenses (Suppression, Altruism, Humor, Sublimation, Anticipation, Acceptance) • Coping strategies – definition, types, explanations and examples
7.1.3	Emotional experience of pain	<ul style="list-style-type: none"> • The pain experiences • Meaning of pain in terminal illness • Psychological impact of uncontrolled pain • Modulatory systems involved in pain pathway that influences pain perception • Bio-psycho-social factors influencing pain perception • Factors decreasing and increasing pain tolerance
7.1.4	Grief and Bereavement 1	<ul style="list-style-type: none"> • Definitions (Bereavement, Grief, Mourning, Anticipatory Grief, Pathological Grief and Disenfranchised Grief) • Kubler Ross Model – 5 stages of grief • Theoretical models of bereavement phenomenon • Normal Grief and Clinical presentation of grief • Factors affecting bereavement outcomes • Typology of palliative care and bereaved families • Recognizing those at risk of complicated grief

7.1.5	Grief and Bereavement 2	<ul style="list-style-type: none"> • Pathological Grief • Clinical presentations of pathological grief • Risk factors for complicated Grief • Bereavement follow up and support • Models of grief therapy • Factors predicting outcomes of grief therapy • Special bereavement situations • Managing denial in anticipatory grief for patients and family members
CD7.2 PSYCHIATRY OF PALLIATIVE MEDICINE		
7.2.1	Adjustment disorder and Distress in Palliative Medicine	<ul style="list-style-type: none"> • Epidemiology of Adjustment disorder in PC • Pathogenesis • Diagnostic criteria • Clinical Course and presentation • Prevention and early detection • Management • Defining distress, NCCN distress thermometer, assessment of distress and causative factors
7.2.2	Depression in Palliative Medicine	<ul style="list-style-type: none"> • Prevalence of depression in cancer, including advanced cancer • Assessment – screening tools • Diagnostic criteria • Risk factors • Mechanisms • Impact on cancer • Treatment – Psychological and Psychopharmacological • Suicide and desire for hastened death • Guidelines for management of depression in palliative care

7.2.3	Anxiety in Palliative Medicine	<ul style="list-style-type: none"> • Definition of fear and anxiety • Screening for anxiety • Anxiety subtypes in cancer – Generalized anxiety disorder, Panic disorder, Social anxiety disorder, Specific phobia, Anxiety due to gen med condition, Substance induced anxiety disorder, Anticipatory anxiety and nausea, Post-traumatic stress disorder • Assessment and Differential diagnosis • Management – <ul style="list-style-type: none"> oa) Being familiar with psychological interventions for anxiety as Cognitive behavior therapy, Behavioral interventions, Others ob) Pharmacological management of anxiety
7.2.4	Dealing with personality traits/disorders in Palliative Medicine practice	<ul style="list-style-type: none"> • Identification of personality trait / disorder, personality characteristics, meaning of illness, Transference / Counter transference response, management of personality and illness • Describing the above in the following personality trait / disorder (Dependent, Obsessive compulsive disorder, Histrionic, Borderline, Narcissistic, Paranoid, Anti-social and Schizoid)
7.2.5	Dealing with patients with chronic mental illness in Palliative Medicine practice.	<ul style="list-style-type: none"> • Affective disorders • Psychotic disorders • Alcohol dependency • Post traumatic disorders • Intellectual disabilities • Approach to a patient with chronic mental illness in PC practice • Approach to a patient with dementia and specially at the end of life care of a patient with dementia • Risk management of patients undergoing palliative treatment - Managing risk of completed suicide, Risk of self harm,

		neglect, nutritional risk, risk of wandering away and risk of harming others in a multidisciplinary team
7.2.6	Psychological issues in a patient with brain neoplasm	<ul style="list-style-type: none"> • Neuropsychiatric changes in a patient with brain tumor and Leptomeningeal disease (Seizures, Loss of motor functions, Headache, alteration mental status, cognitive dysfunction, personality and behavioral changes, anxiety and mood changes and Hallucinations) • Psychiatric symptoms and cerebral tumor location • Treatment related psychiatric side effects (corticosteroid euphoria, corticosteroid bipolarity, steroid dementia, steroid dependence, body image issues)
7.2.7	Dying Mind	<ul style="list-style-type: none"> • Twilight states • Lightening before death • Near death experiences • Last words • Terminal restlessness
CD7.3 DISTRESS, SPIRITUAL AND EXISTENTIAL ISSUES		
7.3.1	Spiritual and Existential issues in Palliative Medicine	<ul style="list-style-type: none"> • Defining Spirituality, Concepts of Religion and Spirituality • Understanding spiritual distress • Spirituality Assessment and tools used in measuring spiritual distress • Providing spiritual care (who and how) • Components of spiritual care (Humane Presence, Listening and Acknowledging, Helping complete unfinished business, Meaningful Communication, Sustaining Personhood and Reconnecting with the community) • Existential distress and managing Existential issues

CD7.4 PSYCHOSOCIAL SUPPORT

7.4.1	Care giver support	<ul style="list-style-type: none"> • Types of caregivers • Caregiver burden • Tools to measure caregiver burden • Psychosocial problems of caregivers • Interventions to deal with family caregiver burden • Support groups in Palliative Medicine
7.4.2	Self-care	<ul style="list-style-type: none"> • Burnout (Definition, risk factors, markers) • Compassion fatigue • Burnout in PC practice and factors influencing burnout unique to PC • Concept of self-care • Self-assessment and self-care plans • Self-care Protective Practices, Protective Skills and Protective Arrangements

SECTION CD8: PEDIATRIC AND GERIATRIC PALLIATIVE MEDICINE, END OF LIFE CARE

CD8.1 PEDIATRIC PALLIATIVE MEDICINE

8.1.1	Introduction to Pediatric Palliative Care	<ul style="list-style-type: none"> • Children needing palliative care (from WHO Global Atlas of Palliative Care 2014) • Edmarc experience • Pediatric Palliative Care in India + Level of integration • WHO definition of pediatric palliative care • ACT/RCPCH pediatric palliative care (PPC) trajectory of illness (Group I to Group IV) • Triaging in pediatric palliative care (4 triage groups) • Differences between adult and pediatric palliative care
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		<ul style="list-style-type: none"> • Square of care in PPC • Barriers involved in PPC provision • Broad format of pediatric palliative care provision (Physical, Psycho-social, Spiritual, Advanced Care planning and Practical) • Models of care in children's palliative care (Foot prints, CHI- PACC, IPPC)
8.1.2	Pediatric Pain 1	<ul style="list-style-type: none"> • Etiological classification of pain in PPC • Algorithm for evaluation of pain in the pediatric population • Pain history taking in PPC • Pain expression in children • Detailed description of various age and situation specific pain assessment scales in children • Guidelines for administering and interpreting pain assessment tools in children • Assessment of impact of pain in children
8.1.3	Pediatric Pain 2	<ul style="list-style-type: none"> • Principles of pharmacological treatment of pain in children • WHO two step ladder for pain management in children • Using non-opioids for pain in children (Drugs, formulations, and dosing) • Using opioids for pain in children (Drugs, formulations, and dosing) • Adjuvant analgesics for managing pain in children • Non pharmacological management of pain in children
8.1.4	Pediatric non pain symptoms	<ul style="list-style-type: none"> • Pediatric Delirium (Pathophysiology, etiology, clinical presentation, pediatric delirium assessment, using pCAM questionnaire in children, pediatric delirium assessment scales, pharmacological and non-pharmacological management of pediatric delirium)

		<ul style="list-style-type: none"> • Dyspnea and intractable cough in children (etiology, assessment and management) • Assessment and management of nausea and vomiting in children • Assessment and management of constipation in children
8.1.5	Pediatric Palliative Care in Cancer	<ul style="list-style-type: none"> • Approach to a child with advanced cancer • Supportive Care issues in Pediatric Oncology • Palliative care in specific pediatric solid tumors (Retinoblastoma, PNET, Neuroblastoma, bone tumors, Hepatoblastoma, Wilm’s tumor etc.) • Palliative care in specific pediatric Hemato- Lymphoid malignancies
8.1.6	Pediatric Palliative Care in Non-Cancer conditions	<ul style="list-style-type: none"> • PPC in chronic pediatric neurodegenerative conditions • PPC in Hemolytic Anemia (Thalassemia and Sickle Cell Disease) • PPC in Cystic Fibrosis • PPC in Congenital Heart Diseases • PPC in Inborn errors of metabolism and chromosomal abnormalities
8.1.7	Psychosocial, communication and ethical issues specific to Pediatric Palliative Care	<ul style="list-style-type: none"> • Children’s views of death • Communication with children in PPC • Impact of serious life limiting illness on family - parents and siblings • Psychological adaptation of the dying child • Guidelines for working with the dying child • Decision-making and ethical issues in pediatric palliative care • Factors affecting bereavement and bereavement support and interventions

8.1.8	Adolescent Palliative Medicine	<ul style="list-style-type: none"> • Classification of adolescents based on physical and cognitive states • Life limiting conditions affecting adolescents and young adults needing palliative medicine. • Specific palliative care needs in early / mid / late adolescents • Psycho-social issues specific to Adolescent Palliative Medicine • Manifestations of grief in adolescents age group
CD8.2 GERIATRIC PALLIATIVE MEDICINE		
8.2.1	Aging	<ul style="list-style-type: none"> • Socio-demographics of Aging with emphasis on developing countries • Theories and Biology of ageing • Physiology of aging • Implications of aging in health care and palliative care
8.2.2	Frailty	<ul style="list-style-type: none"> • Definition • Prevalence • Pathophysiology and clinical features • Tools to measure frailty • Risk factors for falls Comprehensive assessment and interventions
8.2.3	Management of older individuals needing Palliative Care	<ul style="list-style-type: none"> • Broad dimensions of problems in elderly population • Geriatric assessment and geriatric assessment tools • Common medical problems in elderly and their management • Common psychological / psychiatric morbidity in elderly • Practical, Social and Emotional issues • Decision making, goals of care and end of life care in older individuals receiving PC

CD8.3 END OF LIFE CARE

8.3.1	End of Life Care 1	<ul style="list-style-type: none"> • Estimating EOLC needs in the community. • Gaps in EOLC needs in India across various clinical setting • Prognostication • Principles of Good Death • Components of Good Death • Steps involved in providing Good End of Life Care <ul style="list-style-type: none"> oRecognizing the dying process oEnd of Life Decision Making oInitiation of EOLC oProcess of EOLC oAfter death Care • Recognizing the dying process • EOLC decision making (Timing, Decision Makers, Shared Decision Making)
8.3.2	End of Life Care 2	<ul style="list-style-type: none"> • Ethical aspects specific to EOLC (Autonomy and Beneficence, Autonomy and Non maleficence, non-abandonment and Non Maleficence, Disclosure and beneficence, Fair allocation of societal resources) • Special ethical situations (Futility of treatment and Euthanasia) • Legal aspects of EOL as applicable to India
8.3.3	End of Life Care 3	<ul style="list-style-type: none"> • Principles of EOLC symptom management • 6 step EOLC approach (Identify – Assess – Plan – Provide – Reassess – Reflect) • Respiratory secretions in EOLC • Nursing Interventions in EOLC • Palliative Sedation • Silver hour • End of Life Care process and pathways

8.3.4	End of Life Care 4	<ul style="list-style-type: none"> • Principles of after death care. • 4 step approach in verification and certification of death (verification – certification – reporting – registration) • International guidelines for verification of death. Verification of death in primary care, hospital, ICU and comatose patients • Registration of Births and Death Act 1969 • Writing a death certificate • Death Certificate form • When not to issue death certificate • 6 recommendations of IAPC consensus position statement on EOLC policy • IAPC + ISSCM joint society 12 step guidelines on EOLC
SECTION CD9: SPECIAL TOPICS IN PALLIATIVE MEDICINE		
CD9.1 SPECIAL TOPICS IN PALLIATIVE MEDICINE		
9.1.1	Sleep in Palliative Medicine	<ul style="list-style-type: none"> • Sleep physiology • Sleep theories • Sleep disturbances in advanced cancer • Tools to measure sleep related parameters • Management of sleep disorders
9.1.2	Body image and Sexuality in Palliative Medicine	<ul style="list-style-type: none"> • Body image and sexuality in different illnesses • Sexuality in cancer • Psychosocial predictors of sexual functioning after cancer • Sexual history taking • PLISSIT model • Interventions to improve sexual functioning

9.1.3	Ethical Issues in Palliative Medicine 1 (Basics)	<ul style="list-style-type: none"> • Principles and theories • Cardinal principles of Medical Ethics and its application (Autonomy, Beneficence, Non-Maleficence, Justice) • Decision making capacity / Surrogate Decision making • Confidentiality • Informed Consent
9.1.4	Ethical Issues in Palliative Medicine 2 (Special situations)	<ul style="list-style-type: none"> • Limitation of disease modifying treatment • Withholding and withdrawing of life sustaining treatment • Nutrition and Hydration • Ethical situations in end-of-life decision making and end of life care • Conflict and Collusions • Palliative care research
9.1.6	Communication skills Training 1 (Basics of Communication and Breaking bad News)	<ul style="list-style-type: none"> • Basics of communication • Patient centered communication (Goals of patient centered communication, Active Listening, Pre-requisites for good communications, Outcomes of good communication) • Verbal and Non-verbal behaviors • Basics of bad news and truth telling • SPIKES Protocol/CLASS Approach in Breaking Bad News (BBN) • Unhelpful statements/Avoiding Pitfalls/Barriers and Reactions to BBN • (All these discussions should be undertaken along with Role Play)
9.1.7	Communication Skills training 2 (Dealing with Common	<ul style="list-style-type: none"> • Informed consent • Decision making • Uncertainty • Denial

	Communication Issues)	<ul style="list-style-type: none"> • Collusion • Conflict • Anger • Medical errors
		(All these discussions should be undertaken along with Role Play)
9.1.8	Communication Skills training 3 (Advanced Medical Communication Situations)	<ul style="list-style-type: none"> • Cessation of disease modifying care • Transition of care • Discussing prognosis and life expectancy • Discussing future symptoms • Discussing goals of care • Discussing life sustaining treatment • End of life care communication
		(All these discussions should be undertaken along with Role Play)
CD9.2 PALLIATIVE MEDICINE IN SPECIAL SITUATIONS		
9.2.1	Palliative Medicine in Bone Marrow/Stem Cell Transplantation	<ul style="list-style-type: none"> • Physical symptoms specific to stem cell transplantation • Psychosocial issues specific to stem cell transplantation • Management of physical symptoms – Rational Pharmacology specific to SCT • Management of psychosocial issues – Rational Psychopharmacology specific to SCT • Communication issues in SCT • Transitions of care and End of Life in SCT
9.2.2	Palliative Medicine in Intensive Care	<ul style="list-style-type: none"> • Situations in intensive care setting where palliative care is appropriate • Approach, decision making and transitions of care in ICU • Communication with families regarding palliative care in the ICU setting • Ethical and legal considerations of limiting life-sustaining treatment in ICU • Guidelines for limiting life-sustaining treatment

		and providing palliative care / end of life care in ICU
9.2.3	Medico-legal aspects of palliative care	<ul style="list-style-type: none"> • Having an understanding of „mental capacity to consent to treatment“ • Having an understanding of „mental capacity to participate in research in palliative care“ • Testamentary capacity – boundaries and problems • Legal aspects of elder abuse • Euthanasia: International standing, present Indian Law • Physician Assisted suicide: International standing, present Indian Law • Legal aspects and Laws related to prescribing medication including opiates • Parental responsibility of children: What to do when two parents disagree for a child needing palliative care?
9.2.4	Understanding management principles of running a palliative medicine service	<ul style="list-style-type: none"> • Have an understanding of management principles in Running and setting up a new palliative care service • Quality control • Team working • Clinical governance and audit • Managing complaints • Handling underperforming juniors • Brief introduction to accreditation processes (NABH, ESMO etc.)
9.2.5	Have a good understanding about the ethical aspect of palliative medicine	<ul style="list-style-type: none"> • Principles of medical ethics • Framework for ethics-based decision making • Ethical considerations in Medical Futility, limiting life-sustaining treatment and euthanasia • Best interest principles in ethics-based decision making • Ethical considerations in paediatric palliative care

9.2.6	Perinatal Palliative Medicine	<ul style="list-style-type: none"> • Definition and scope of perinatal palliative medicine • Conditions suitable for perinatal palliative medicine • Pain assessment in fetuses and newborn • Stages of planning in perinatal palliative medicine (Antenatal planning, pre-birth care, intrapartum and postpartum care) • End of life care decisions in babies with adverse prognosis
CD9.3 PROCEDURES, INTERVENTIONAL TECHNIQUES IN PALLIATIVE MEDICINE		
9.3.1	Procedures and Interventional techniques in Palliative Medicine 1	<ul style="list-style-type: none"> • Parenteral opioid infusions, setting up a syringe driver, syringe driver compatibility, dosing and titration, monitoring, anticipating complications and mitigation mechanisms • Epidural and Intrathecal Analgesia, technical aspects of procedure, dosing and titration, managing a patient with Epidural and Intrathecal catheter, Early and Late complications of intrathecal and epidural analgesia • Site specific neurolytic procedures
9.3.2	Procedures and Interventional techniques in Palliative Medicine 2	<ul style="list-style-type: none"> • Oxygen, Oxygen delivery systems, cannula masks and venture, noninvasive ventilation, Tracheostomy • Abdominal paracentesis, pleurocentesis, pericardiocentesis, Intercostal drains • Nasogastric / Nasojejunal tubes, Percutaneous gastrostomy, Feeding Jejunostomy, peritoneal catheter for ascetic tap, percutaneous biliary drainage and other stenting procedures • Urinary catheters including suprapubic,

		Percutaneous nephrostomy, DJ stenting
CD 9.4 COMPLEMENTARY AND ALTERNATIVE MEDICINE IN PALLIATIVE MEDICINE		
9.4.1	Complementary and Alternative Medicine (CAM) 1	<ul style="list-style-type: none"> • NCCAM Classification (Alternative Medical System, Mind Body Medicine, Biologic Based Therapy, Energy Based Therapy, Electrical / Mechanical Stimulation) • CAM-PC Interphase • CAM interventions (Acupuncture, Acupressure, Aromatherapy, Hypnosis, Meditation / Relaxation, Music Therapy, Reflexology, Reiki, Yoga) • Alternative Medical Systems (Ayurveda, Homeopathy and Herbal Medicine)
9.4.2	Complementary and Alternative Medicine (CAM) 2	<ul style="list-style-type: none"> • CAM in Pain Management • CAM in Management of Nausea • CAM in Management of Dyspnea • CAM in Management of Fatigue, Anorexia Cachexia Syndrome • CAM in Anxiety and Depression • Evidence based clinical practice guidelines for management for Integrative Oncology • CAM and Botanical preparations
SECTION CD10: NURSING AND REHABILITATIVE CARE IN PALLIATIVE MEDICINE		
CD10.1 NURSING CARE IN PALLIATIVE MEDICINE		
10.1.1	Care of Stomas 1 (Colostomy and Ileostomy)	<ul style="list-style-type: none"> • Classification and detailed description of each types (Temporary Colostomy, Decompressive Colostomy, Diverting

		<p>Colostomy, Permanent Colostomy, Ileostomy)</p> <ul style="list-style-type: none"> • Management of a patient with colostomy and Ileostomy (Pre- op education, facilitating adaptation, pouching, odor and gas management, Activities in a patient with colostomy-ADLs, sexual activity, travel, sports etc.) • Dietary management of a patient with colostomy and ileostomy Ileostomy care and special issues in Ileostomy care • Colostomy irrigation • Complications of colostomy and ileostomy and management of complications • Patient education and information
10.1.2	Care of Stomas 2 (Tracheostomy, Urostomy, Gastrostomy)	<ul style="list-style-type: none"> • Timing and indications for tracheostomy • Techniques and contraindications for tracheostomy • Immediate post-op care in tracheostomy • Technique of changing the tracheostomy tube – things to look for • Decannulation • Complications in a patient with tracheostomy • Nursing care of a patient with tracheostomy • Patient education and information • Urinary diversion – overview and indications • Ileal conduit and continent cutaneous diversions • Complications of urinary diversion procedures • Nursing care of a patient with ileal conduit • Care of a patient with percutaneous nephrostomy • Care of Gastrostomy and Jejunostomy • Care of a patient with Nasogastric and Nasojejunal tube

10.1.3	Lymphedema	<ul style="list-style-type: none"> • Anatomy and Physiology of Lymphatic system • Pathophysiology and classification • Cancer associated Lymphedema • Clinical features and staging of Lymphedema • Approach to a patient with Lymphedema (History and Examination) • Clinical and anthropometric measurements and relevant investigations • Differential diagnosis and complications • Prevention of Lymphedema • Treatment of Lymphedema • Complete Decongestive Therapy (CDT) in Treatment Phase and Maintenance Phase • Components of CDT (Manual lymphatic draining, compression bandaging and garments, Exercise and Elevation, Skin care) • Devices used in management of Lymphedema • Pharmacological treatment of lymphedema
10.1.4	Malignant Wounds, Chronic Malignant / Non Malignant Fistulas and Sinuses	<ul style="list-style-type: none"> • Tumor Necrosis (Definition, Pathophysiology, Assessment and Management) • Comprehensive assessment of a malignant wound • Management of a malignant wound (Exudate, Odor, Bleeding, Infection, Pain) • Myiasis (Maggots) • Topical dressings and drugs used in management of malignant wound • Fistulas (Definition, Pathophysiology, Assessment and Management) • Sinuses (Assessment and Management) • Role of radiotherapy for malignant ulcers
10.1.5	Pressure Ulcers	<ul style="list-style-type: none"> • Pathogenesis and risk factors for pressure ulcers • Risk prediction scales (Norton and Braden) • Clinical features

		<ul style="list-style-type: none"> • NPUAP staging • Stage wise management of pressure ulcers • Local measures and dressing used • Role of surgical interventions in pressure ulcers • Other treatment techniques (negative pressure therapy, hyperbaric oxygen, ultrasound, electrical stimulation) • Prevention of pressure ulcers (pressure redistribution techniques, positioning techniques, skin care, other supportive techniques - mobility/nutrition etc.) • Infectious and non-infectious complications of pressure ulcers • Patient education and information
10.1.6	Bladder and Catheter Care	<ul style="list-style-type: none"> • Catheter associated UTI (Risks, mechanisms, Diagnostic criteria, Clinical features, common organisms, complications) • Management of catheter associated UTI (Stepwise protocol, Antibiotic regimes, Supportive treatment) • Common types of catheters and bags (Catheter makes, balloon types, balloon sizes, catheter sizes and diameters, bags and insertion gel) • Technique of insertion and removal • Types of catheterization (short / intermediate and long term) • Catheterization methods (Intermittent, indwelling, suprapubic, condom) • Problems associated with long term catheter • Principles of care of urinary catheter • Patient education and information
10.1.7	Oral Care 1	<ul style="list-style-type: none"> • Clinical Assessment of Oral Cavity – 8 • Component assessment (Voice, Swallowing, Lips, Tongue, Saliva, Gums, Teeth / Dentures, Mucus Membrane) • Five stage model of Oral Mucositis (OM)

		<ul style="list-style-type: none"> • Causes and etiopathogenesis of OM • WHO Scale / NCI-CTC-AE Grade of OM • Clinical Stages of OM • Management of OM (Stepped Protocol –Basic Oral Care, Bland Rinses, Topical Analgesics / Anesthetics / Mucosal Coating agents, Systemic Analgesics) • Combination Mouth Washes (Miracle Mouth Wash 1 and 2 / Magic Mouth Wash etc.) • Prevention of OM
10.1.8	Oral Care 2	<ul style="list-style-type: none"> • Halitosis (3 stage scale / Organoleptic Scoring Scale, Assessment and Management) • Xerostomia (Definition, Pathophysiology, Etiology, Xerostomia index, Sialagogues, Non Pharmacological Management) • Sialorrhea (Assessment and Management) • Dysgeusia (Assessment and Management) • Oral Candida (Causative organisms, Clinical types, Clinical Presentation, Treatment and Prevention) • Bacterial and viral infections of oral cavity
10.1.9	Incontinence Care	<ul style="list-style-type: none"> • Bladder physiology including nerve supply • Urinary Incontinence (Definition, Pathophysiology and Epidemiology) • Clinical types of Urinary Incontinence with detailed description of each type (Urge, Stress, Mixed, Overflow, Continuous) • Algorithm of assessment and management of Urinary Incontinence (including etiology for each type) • Pharmacological management of Urinary Incontinence • Overall management of each type of urinary incontinence • Fecal incontinence (Epidemiology, pathophysiology, clinical presentation)

		<ul style="list-style-type: none"> • Algorithm for evaluation of a patient with fecal incontinence • Management of fecal incontinence and general bowel management • Management of a patient with Vesico-Vaginal fistula and Recto-Vaginal fistula
10.1.10	Nursing Care in Bedridden patients and patients with altered mental status	<ul style="list-style-type: none"> • Common nursing issues in a bedridden patient • Common nursing issues in a unconscious patient • Assessment and management of nutritional needs • Airway protection and prevention of aspiration • Skin care • Positioning • Bowel management • Mucosal care • Prevention of delirium and depression • Preventing infections • Safety and fall prevention
10.1.11	Nursing Care in End of Life	<ul style="list-style-type: none"> • Assessment of end of life care symptoms • Assessment of nonphysical needs in end of life • Anticipatory prescription and prompt response to symptoms • Non pharmacological management of respiratory secretions, pain, restlessness, dyspnea • CAM therapies in end of life After death care
CD10.2 REHABILITATIVE CARE IN PALLIATIVE MEDICINE		
10.2.1	Quality of Life, Performance Status and Mobility	<ul style="list-style-type: none"> • Definition and structure of quality of life • Multi-dimensional assessment of QOL • Health related QOL in PC • Karnofsky Performance Scale (Uses, Structure, Validity) • Eastern Cooperative Oncology Group (ECOG) Scale (Uses, Structure, Validity) • Barthel index
10.2.2	Medical Rehabilitation of a Palliative Care Patient 1	<ul style="list-style-type: none"> • Rehabilitation in Palliative Care • Rehabilitation team • Needs assessment, integration, goal setting and

		delivery <ul style="list-style-type: none"> • Pulmonary Rehabilitation • Speech and language rehabilitation • Swallowing rehabilitation
10.2.3	Medical Rehabilitation of a Palliative Care Patient 2	<ul style="list-style-type: none"> • Rehabilitation of palliative care patients with motor deficits • Rehabilitation of palliative care patients with sensory deficits • Rehabilitation of palliative care patients with cranial nerve deficits • Rehabilitation of palliative care patients with cognitive dysfunction • Rehabilitation of palliative care patients with de conditioning
10.2.4	Nutrition and Hydration in Palliative Medicine	<ul style="list-style-type: none"> • Nutrition and cancer / chronic illness • Nutritional and Hydration assessment • Principles of nutrition therapy (Indications and routes) • Enteral and parenteral nutrition in terminally ill patient • Hydration in a terminally ill patient

V. COMPETENCIES:

- AFFECTIVE DOMAIN (ATTITUDES AND VALUES DOMAIN)** - Post-Graduate Trainee Resident pursuing DNB (Palliative Medicine) course is expected to acquire following attitudes and values. [AD=Affective Domain]

AD1. PALLIATIVE CARE PRINCIPLES	
AD1.1	Recognizes pain, symptoms and suffering in patients with advanced life limiting illness
AD1.2	Recognizes the need for relief of psychosocial, spiritual and existential suffering
AD1.3	Recognizes the need for appropriate care and support for the family and caregivers
AD1.4	Recognizes that the care is person centered, personalized and holistic aiming to improve physical symptoms, suffering and quality of life.
AD1.5	Recognizes the vast unmet palliative care needs in the population
AD1.6	Understands principles of palliative care and its application

AD1.7	Recognizes the need to advocate for the patients needing palliative care
AD1.8	Understands various modes and models of palliative care delivery
AD1.9	Recognizes the need for palliative care policy at institutional/national level and recognizes the need for developing the same
AD1.10	Recognizes the need for palliative care quality standards and implementation of the same
AD2. PAIN AND SYMPTOM MANAGEMENT	
AD2.1	Demonstrates interest and openness in dealing with pain and symptoms
AD2.2	Exhibits leadership and responsibility in dealing with patients with poorly controlled and intractable pain and symptoms
AD2.3	Exhibits safe prescription writing, exhibits care while prescribing medications for pain and symptom control and recognizes the need to identify aberrant drug use/drug diversion
AD2.4	Recognizes the role of cognitive, emotional, and spiritual factors in the symptom experience
AD2.5	Recognize the impact of pain and physical symptoms on activities of daily living, sleep, mood, sexual activity and other social domains
AD2.6	Recognizes the value of a multi-disciplinary approach to symptom management
AD2.7	Recognizes and initiates appropriate referral to other pain management services as needed
AD2.8	Recognizes the role and importance of parenteral and interventional pain management in patients with intractable pain.
AD2.9	Recognizes the need to initiate palliative sedation in suitable patients with intractable symptoms
AD2.10	Exhibits a compassionate attitude towards the patients with pain and symptoms
AD3. EXPERT CLINICAL DECISION MAKING	
AD3.1	Recognizes palliative care needs in a patient with advanced cancer
AD3.2	Expresses the palliative care needs of patients with advanced cancer to the treating oncologist and advocates for early palliative care referral
AD3.3	Recognizes palliative care needs in non-oncology conditions such as end stage organ failures, advanced HIV/AIDS, chronic neurodegenerative conditions etc.

AD3.4	Expresses the palliative care needs of patients with advanced non-oncological conditions to the concerned specialists and advocates importance of palliative care referral
AD3.5	Recognizes supportive care needs in patients with advanced life limiting illness and understands importance of supportive care in length and quality of life
AD3.6	Recognizes complications in patients with advanced life limiting illness and initiates appropriate management after thorough consideration of benefits and futility
AD3.7	Recognizes co-morbid conditions in patients with advanced life limiting illness and provides appropriate management or referral to the concerned specialist
AD3.8	Recognizes emergencies in palliative care
AD3.9	Recognizes the importance of managing palliative care emergencies and provides appropriate situation specific care after thorough consideration of benefits and futility
AD3.10	Recognizes and initiate appropriate referral to other specialist services disease management provided such referral positively impacts symptom control and quality of life.
AD4. PSYCHOSOCIAL, EMOTIONAL AND SPIRITUAL SUPPORT	
AD4.1	Recognizes the need for comprehensive assessment of socioeconomic status, caregiver support, social and financial support and living conditions of the patient and family
AD4.2	Understands and evaluates psychological and emotional concerns of patients and them families
AD4.3	Recognizes distress and exhibits an empathic approach to patient and family
AD4.4	Recognizes the need for involvement of other appropriate health professionals, e.g. social workers / psychologists / counselors, as needed in assessment and management of distress
AD4.5	Recognizes anxiety, depression and other psychiatric morbidity prior and occurring during illness
AD4.6	Recognizes the need to consult with psychiatric services when appropriate
AD4.7	Exhibits holistic approach towards care of patients with psychiatric complications
AD4.8	Recognizes patients with intentional self-harm behavior and suicidal ideations
AD4.9	Recognizes that spirituality is an integral part of a patient's experience

AD4.10	Recognizes that spiritual pain can contribute to suffering and recognizes the contribution of the spirituality to hopelessness and meaning of life
AD5. INTERDISCIPLINARY CARE	
AD5.1	Chooses to be a team player and openly supports team activity
AD5.2	Recognizes the importance of team cohesiveness and strives towards same
AD5.3	Exhibits participation in a multidisciplinary team and recognizes importance and contributions of each team member
AD5.4	Exhibits contribution towards multidisciplinary team meeting and recognizes the need to work cohesively with other member team members to achieve a common goal.
AD5.5	Recognizes the need to participate in interdisciplinary team meetings such as disease management groups, tumor board meeting, joint clinics etc.
AD5.6	Recognizes the need to advocate for patients in interdisciplinary team meetings and advocate for patients with other specialists.
AD5.7	Exhibits consideration and respect for opinions of members of multidisciplinary and interdisciplinary teams
AD5.8	Recognizes the need for educational activities within the multidisciplinary team
AD5.9	Recognizes need to create research opportunities within multidisciplinary / interdisciplinary team
AD5.10	Recognizes the need for team building exercises
AD6. DECISION MAKING	
AD6.1	Exhibits a non-judgmental attitude towards value and belief systems of patients and families
AD6.2	Recognizes the need to participate in shared decision-making to ensure that outcomes are compatible with the values and belief systems of patients and families.
AD6.3	Recognizes that relationships with patients and their families based on mutual understanding, trust, respect, and empathy facilitate good decision making
AD6.4	Recognizes importance of good decision-making and adverse outcomes of poor decision- making resulting in inappropriate care.
AD6.5	Recognizes the need to discuss possible therapies available to a patient in an open and non- judgmental manner

AD6.6	Recognizes the limitations as well as the strengths of curative and disease modifying treatment in patients with progressive, life-threatening illness
AD6.7	Recognizes the need to participate in important decision-making situations such as cessation of disease modifying treatment, transitions of care, discussion of goals of care etc.
AD6.8	Recognizes the need to participate and provide input during advanced care planning.
AD6.9	Recognizes the need to participate in discussions around withholding and withdrawing life support
AD6.10	Recognizes the need to participate in end-of-life care decision making
AD7. COMMUNICATION	
AD7.1	Exhibits participation in honest, accurate health related information sharing in a sensitive and suitable manner
AD7.2	Recognizes that being a good communicator is essential to practice effectively in Palliative Medicine
AD7.3	Exhibits effective and sensitive listening skills
AD7.4	Recognizes the importance and timing of breaking bad news and knows when not to discuss these issues.
AD7.5	Exhibits participation in discussion of emotional and existential issues
AD7.6	Exhibits competence and sensitivity in discussing transitions, palliative care and end-of-life issues.
AD7.7	Exhibits willingness to talk openly about death and dying with patients, family, other health professionals, and the general community
AD7.8	Exhibits leadership in handling complex and advanced communication related issues
AD7.9	Recognizes the importance of patient confidentiality and the conflict between confidentiality and disclosure.
AD7.10	Recognizes the value of self-evaluation and finessing of one's own communication skills
AD8. CHILDREN AND OLDER INDIVIDUALS	
AD8.1	Recognizes varied presentation of pain and symptoms in children in different age groups
AD8.2	Recognizes varied physical, emotional and psychological needs of children and adolescents in different age group
AD8.3	Recognizes developmental influences on pain assessment and management
AD8.4	Recognizes the need for varied communication approach in children in different age groups

AD8.5	Recognize importance of communication with parents / grandparents / siblings and extended family
AD8.6	Recognizes how pediatric palliative care differs from adult palliative care
AD8.7	Recognizes the importance of working in a pediatric multidisciplinary team
AD8.8	Recognizes the multiple dimensions of old age problem
AD8.9	Recognizes frailty, disability, physical and psychosocial needs of older individuals
AD8.10	Recognizes the importance of preserving functionality, preventing complications, managing co-morbidity and maintaining dignity and quality of life.
AD9. END OF LIFE CARE	
AD9.1	Recognizes the terminal phase
AD9.2	Exhibits compassionate care of dying patients and their families
AD9.3	Exhibits readiness to continually care for the dying person and support their family
AD9.4	Exhibits a considerate, holistic end of life care approach
AD9.5	Recognizes the emotional challenges, grief and loss in themselves, other staff and families
AD9.6	Recognizes end of life symptoms and initiates appropriate management
AD9.7	Recognizes nonphysical needs during end of life and recognizes the spirituality of the dying person
AD9.8	Recognizes the importance of advanced sensitive communication during end of life phase
AD9.9	Exhibits respect for the body after death, supporting individual religious and cultural practices
AD9.10	Recognizes a need for an improved community awareness of end of life care and recognizes a need for institutional / national end of life care policy.
AD10. PROFESSIONALISM AND LEADERSHIP	
AD10.1	Recognizes limitations of self and recognizes need to seek appropriate help/support when required
AD10.2	Recognizes the need to participate in personal reflection and exercise mindful practice
AD10.3	Exhibits willingness to acknowledge one's own potential issues of loss and grief
AD10.4	Recognizes care boundaries, limitations of care and need to manage expectations.

AD10.5	Exhibits appropriate respect for the opinions of colleagues while advocating for palliative care
AD10.6	Exhibits leadership but also respect the leadership of others within the interdisciplinary palliative care team when appropriate
AD10.7	Exhibits leadership and willingness to advocate for the socially disadvantaged and vulnerable population needing / receiving palliative care
AD10.8	Recognizes the need to empower patients and their families facing life limiting / terminal illness
AD10.9	Recognizes burn out symptoms in self and amongst members of the team and institutes early mitigation measures
AD10.10	Recognizes the importance of self-care and extend care to other members of the team

2. **PSYCHOMOTOR DOMAIN (SKILLS DOMAIN)** -Post-Graduate Trainee Resident pursuing DNB (Palliative Medicine) course is expected to develop following procedural and non-procedural skills. [PD=Psychomotor Domain]

PD1. COMMUNICATION SKILLS	
PD1.1	Able to establish rapport and therapeutic bonding with patients of different ages, gender, religious and cultural background, socioeconomic groups, and various illnesses / stages in illness trajectory
PD1.2	Able to obtain comprehensive and relevant history from patients, their families and referring teams
PD1.3	Able to comprehend patients and family wishes / preferences regarding information sharing and the extent of information they would like to receive
PD1.4	Able to break bad news and convey other health related information to patient and their family in a sensitive and caring manner
PD1.5	Able to comprehend patients understanding of information received, and respond to the reactions and clarify any misunderstandings
PD1.6	Able to handle complex communication related issues such as denial, conflict, collusion etc. within the family in a sensitive, nonjudgmental, culturally appropriate and respectful manner
PD1.7	Able to take lead in advanced medical communication related issues such as cessation of disease modifying treatment, transition of care, goals of care etc.
PD1.8	Able to overcome barriers related to communication

PD1.9	Able to communicate clearly and effectively within the inter disciplinary / multidisciplinary teams, referring physicians family physicians such that appropriateness and continuity of care is maintained.
PD1.10	Able to maintain clear, concise, accurate medical records
PD2. DECISION MAKING SKILLS	
PD2.1	Able to assess the extent to which patient and caregivers would like to be part of decision making
PD2.2	Able to understand patient's and caregivers expectations, wishes and preferences regarding management of the illness at hand and its complications
PD2.3	Able to facilitate patient and caregiver's participation in important treatment relate decision- making and care process.
PD2.4	Able to discuss treatment options, its continuation and cessation, alternatives to treatment with patient and caregiver so that they are able to make informed decisions
PD2.5	Able to ascertain patient and caregivers understanding of illness, clinical outcomes and prognosis to facilitate appropriate future care.
PD2.6	Able to conduct a family meeting ensuring participation of patient / care givers and members of interdisciplinary / multidisciplinary team to facilitate informed / shared decision-making.
PD2.7	Able to take lead in important decision making situations like cessation of disease modifying treatment and transition of care process
PD2.8	Able to provide input during Advanced Care Planning
PD2.9	Able to take lead during discussion and decision making during withholding / withdrawing life sustaining treatment and cessation of supportive care treatment
PD2.10	Able to take lead during end of life discussion and decision-making.
PD3. PAIN AND SYMPTOM MANAGEMENT SKILLS	
PD3.1	Able to perform a thorough history and examination and detailed clinical assessment of pain and other symptoms
PD3.2	Able to assess pain and other symptoms in patients from different age groups, socio-cultural and religious backgrounds, clinical and mental status and disease states
PD3.3	Able to relate pain and other symptoms to underlying pathophysiological mechanisms and plan rational pharmacological and non-pharmacological treatment

PD3.4	Able to rationalize and choose appropriate investigations in patients with pain and other symptoms, if there is scope to mitigate the symptom(s) or avoid complications
PD3.5	Able to plan treatment for pain and symptoms in the context of disease status, prognosis, appropriateness and patient and family preferences and wishes
PD3.6	Able to choose pharmacological treatment of pain and other symptoms based on the age, renal and hepatic parameters, response, tolerance and adverse effects.
PD3.7	Able to choose right patients for anti-cancer therapies and other disease modification treatments for pain and symptom control and improved quality of life.
PD3.8	Able to handle / use parenteral strong opioids and administer opioids for pain control through subcutaneous and intravenous routes.
PD3.9	Able to mix drugs in a syringe driver, know compatibilities during drug mixing and able to titrate the doses to achieve optimal pain and symptom control
PD3.10	Able to manage a patient with an epidural and intrathecal catheter and able to assist/perform simple neurolytic procedure.
PD4. SUPPORTIVE CARE AND DISEASE MANAGEMENT SKILLS	
PD4.1	Able to know the natural history of cancer, epidemiology, behavior, anti-cancer therapies, transition points, palliative phase, non-responsive to treatment and stopping treatment to facilitate early and appropriate referral.
PD4.2	Able to understand cancer illness trajectory and able estimate prognosis in a patient with advanced cancer
PD4.3	Able to initiate referral for disease modifying treatment or management of complications to a concerned specialist with a goal of improved symptom control and betterment of quality of life.
PD4.4	Able to guide families regarding newer anti-cancer therapies / trial treatments / complementary and alternative therapies.
PD4.5	Able to meet palliative care needs of end stage organ failures such as advanced congestive heart failure, advanced chronic obstructive lung disease, end stage chronic kidney disease etc.
PD4.6	Able to meet palliative care needs of patients with advanced HIV/AIDS

PD4.7	Able to meet palliative care needs of patients with chronic neurodegenerative conditions such as Dementia, Motor Neuron Diseases etc.
PD4.8	Able to manage emergencies and complications related to the disease / disease progression such as malignant spinal cord compression, malignant superior venacaval obstruction, airway obstruction, hemorrhage etc. in a way that positively influences illness trajectory/life and be aware of situations when management of these are futile.
PD4.9	Able to manage concurrent illnesses such as infections / sepsis, metabolic disturbances, anemia, thrombosis etc. in a way that positively influences illness trajectory / life and be aware of situations when management of these are futile.
PD4.10	Able to manage co-morbid illnesses such as hypertension, diabetes mellitus, ischemic heart disease etc. and able initiate referral to concerned specialist as required.
PD5. PSYCHOSOCIAL SUPPORT SKILLS	
PD5.1	Able to assess and appraise patient@s psychological, social, financial, spiritual and existential concerns
PD5.2	Able to identify and quantify distress and provide support to patients and families
PD5.3	Able to handle distressing emotions, anger, blame, guilt etc. in patients and their families respectfully and sensitively in a nonjudgmental manner
PD5.4	Able to identify spiritual issues and perform assessment of spiritual concerns
PD5.5	Able to identify spiritual distress and spiritual nature of suffering and provide spiritual care by self or with the help of chaplain
PD5.6	Able to perform detailed mental status examination and identify and manage adjustment disorders, anxiety and depression
PD5.7	Able to assess a patient with psychiatric morbidity, seek help from the psychiatrist / clinical psychologist and formulate a management plan
PD5.8	Able to identify patients / caregivers at risk of intentional self-harm and with suicidal ideations and initiate a emergency management plan
PD5.9	Able to explore and discuss issues related to body image changes/disfigurement and sexuality in a sensitive and respectful manner
PD5.10	Able to counsel the patients and caregivers in a scientific and rational manner addressing their needs.

PD6. INTERDISCIPLINARY CARE AND TEAM MANAGEMENT SKILLS	
PD6.1	Able to facilitate creation of a multidisciplinary team comprising of health professionals from a range of disciplines and expertise
PD6.2	Able to work as a member of team and able to be a team player.
PD6.3	Able to take up leadership, ensure participation and coordinated work of members of multidisciplinary team to achieve a common goal
PD6.4	Able to recognize value and contributions of members of multidisciplinary team and able to delegate responsibilities.
PD6.5	Able to respect opinions of the members of the multidisciplinary team and able to resolve team conflicts.
PD6.6	Able to attend interdisciplinary meetings such as tumor board meetings, disease management group meetings, joint clinics etc.
PD6.7	Able to make relatable contributions to these interdisciplinary meetings and advocating for appropriate care and palliative care
PD6.8	Able to respect opinions of the other specialists and also respectfully disagree the decisions of the other clinicians if they are not in the best interest of the patient.
PD6.9	Able to carry out education, view sharing and other team building exercises.
PD6.10	Able to facilitate research opportunities in a multidisciplinary and interdisciplinary setting.
PD7. END OF LIFE CARE SKILLS	
PD7.1	Able to recognize terminal phase and diagnose dying. Able to assist peers to recognize dying and facilitate appropriate care
PD7.2	Able to participate in end of life decision-making with the other specialists and arrive at consensus, appropriate and patient centered clinical decision and goals of care.
PD7.3	Able to participate in end of life decision-making with the families, empowering shared decision making and able to communicate effectively end of life concerns and prognosis.
PD7.4	Able to discuss with patients and families regarding preferred place of care.
PD7.5	Able to assess appropriateness of initiation of end of life care process. Able to understand, use, educate and implement end of life care pathway and process.

PD7.6	Able to understand and apply ethical and legal aspects pertaining to end of life care.
PD7.7	Able to effectively assess physical and non-physical needs of a dying person and provide appropriate pharmacological, nursing and psychosocial support.
PD7.8	Able to identify families who will be at high risk of bereavement.
PD7.9	Able to discuss, educate and advocate for end of life care with the peers, institution and community at large.
PD7.10	Able to advocate for hospital end of life care policy and hospital directives for withholding / withdrawing life support.
PD8. PROCEDURAL SKILLS	
PD8.1	Able to perform insertion of subcutaneous and intravenous lines, able to administer medications for pain and symptom control through subcutaneous and intravenous route
PD8.2	Able to set up a syringe driver, calculate doses, mix drugs, know compatibility and administer medications as a continuous infusion.
PD8.3	Able to handle various types of syringe drivers, PCA pumps, continuous ambulatory drug devices etc. knows how to handle these instruments.
PD8.4	Able to perform diagnostic and therapeutic paracentesis and pleurocentesis.
PD8.5	Able to insert nasogastric and assisted Nasojejunal tubes. Able to insert indwelling urinary catheters and care for a patient with a catheter.
PD8.6	Able to recognize and manage a pressure ulcer and malignant wound. Able to do wound dressing in different kinds of wounds with various dressing. Able to manage complications of wounds such as bleeding, foul smell, Myiasis etc.
PD8.7	Able to manage and care for a patient with stoma: Tracheostomy Care, Gastrostomy, and Colostomy Care. Able to perform high up enemas and colostomy irrigation
PD8.8	Able to use oxygen, nebulizers and other non-invasive respiratory support devices
PD8.9	Able to manage a patient with Lymphedema. Able to perform complete decongestive therapy using Lymphedema Bandage, Massage and Exercise.
PD8.10	Able to care for the dying patients, plan and administer palliative sedation in dying patients with intractable symptoms.

PD9. QUALITY ASSURANCE, EDUCATION AND RESEARCH SKILLS	
PD9.1	Able to participate in departmental quality assurance activities and implement quality improvement strategies such as audit processes
PD9.2	Able to monitor effectiveness of the program and reduce lapses in care process and medical errors
PD9.3	Able to develop departmental/institutional clinical management algorithms and standard operating procedures.
PD9.4	Able to provide high level of teaching skill and actively participate in departmental and hospital educational programs
PD9.5	Able to involve actively in conducting sensitization programs, certificate courses, CMEs and national/international conferences
PD9.6	Able to initiate / encourage research in Palliative Care
PD9.7	Able to seek permission from institutional review board and undertake ethical research
PD9.8	Able to voluntarily express self-awareness of conflict of interest
PD9.9	Able to conduct blinded randomized studies and observational
PD9.10	Able to critically analyze RCTs, systematic reviews and exhibit evidence based practice
PD10. GOOD PRACTICE AND LEADERSHIP SKILLS	
PD10.1	Able to identify limitations of self and seek help where necessary
PD10.2	Able to apply ethical principles in day today clinical practice
PD10.3	Able to uphold the values of integrity, honesty, and compassion
PD10.4	Able to exhibit diligence, competency, and approachability
PD10.5	Apply principles of mindful practice to realize the vision of holistic care
PD10.6	Able to practice in an emotionally sustainable way
PD10.7	Able to reflect and understand personal losses and grief
PD10.8	Able to detach individual values and beliefs when dealing with patients with differing values and belief systems
PD10.9	Able to work in an environment of mutual respect
PD10.10	Able to care for self and the team

VI. LOG BOOK:

Aims and Objectives of the Log-Book:

The aim of the log-book is to evaluate the training program on a day to day basis so as to ascertain the eligibility of the candidate to appear for the final examination for the degree / diploma.

Following are the objectives of maintaining the logbook:

1. To help the Resident maintain the day to day record of work done by him / her.
2. To enable the faculty to have first-hand information about the work done by the resident and suggest improvements for better performance.
3. To confirm the participation in post graduate training activities like ward rounds, presentation of scientific articles at journal club, case clinics, post graduate seminars, clinical symposia and book reviews.
4. Assessing the skills acquired by residents in patient care, teaching and research.
5. To confirm the level and degree of participation in research activities.

Name of the P. G. Student:

Name of the P. G. Guide:

Name of the Institute:

Institute logo

[NAME AND ADDRESS OF THE HOSPITAL]

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.....
.....

DEPARTMENT

.....

CERTIFICATE

This is to certify that Dr. was registered as a post- graduate student for the DNB Degree in the subject of Palliative Medicine at

The procedures and the academic activities recorded in the log-book have been checked and authenticated and are as per the hospital records and have been carried out under the guidance of the faculty members of the

Signature and name of the
PG Teacher

Signature and name of the
Head of the Department

Signature of Head of Institute

DISSERTATION DETAILS

TITLE

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

..... Stipulated date of submission.....

Date of approval by Institutional Review Board / Ethics Committee:

.....

Date of submission of completed dissertation:

.....

Name of PG Teacher

.....

Signature of PG Teacher:

.....
Dated

PERSONAL DETAILS

1. Full Name: (Surname, first name, middle name):
2. Date of Birth (DD/ MM/ YY):
3. Age:
4. Permanent Address & telephone number:
.....
.....
5. Local Address and telephone / mobile:
.....
.....
6. E-Mail id:
7. MBBS Degree:
 - a. Year of passing:
 - b. College:
 - c. University:
 - d. Distinction / Prizes / Medals / Scholarships etc.:
8. Internship:
 - a. Month / year of beginning:
 - b. Month / year of completion:
 - c. College & Hospital:
9. Previous Experience (Give Details):
10. Medical Council Registration No.:
11. Name of PG teacher:

12. Month & year of joining the course:

13. Month & year of appearing for the degree / diploma examination:

14. Special Interest / Extra Curricular Activities:

CHRONOLOGICAL RECORD OF RESIDENCY TRAINING

From	To	Specialty / Sub - specialty	Unit in charge	Institution

FIRST YEAR RESIDENCY
(Palliative Medicine- Core training)
END OF POSTING ASSESSMENT

Sl No	Particulars	Quart.1	Quart.2	Quart.3	Quart.4
	From – To				
1	Punctuality and Reliability (5%)				
2	Dependability (5%)				
3	Quality of Work (10%)				
4	Bedside manners (10%)				
5	Patient Interaction / counseling (5%)				
5	Case workup (10%)				
6	Systematic reporting / presentation (5%)				
7	Case follow-up (5%)				
8	Documentation (5%)				
9	Team work / Interpersonal skills (5%)				
10	Attire and self presentation (5%)				
11	Knowledge and preparedness (10%)				
12	Application of knowledge (5%)				
13	Procedural skills (5%)				
14	Teaching initiatives / skills (5%)				
15	Research interest / initiatives (5%)				
	Net Score (100%)				
	Signature and Seal of Head of the Department / Unit Head with Date				
Scoring System					
5		Outstanding (80% and above)			
4		Excellent (70-79%)			
3		Good (60-69%)			
2		Average (50-59%)			
1		Below Average (less than 50%)			

**SECOND YEAR RESIDENCY
(Non-Core training)
END OF POSTING ASSESSMENT**

Sl no.	Particulars	General Medicine	Gastroenterology	Neurology	Nephrology
	From - To				
1	Punctuality and Reliability (5%)				
2	Dependability (5%)				
3	Quality of Work (10%)				
4	Bedside manners (10%)				
5	Patient Interaction / counseling (5%)				
5	Case workup (10%)				
6	Systematic reporting / presentation (5%)				
7	Case follow up (5%)				
8	Documentation (5%)				
9	Team work / Interpersonal skills (5%)				
10	Attire and self-presentation (5%)				
11	Knowledge and preparedness (10%)				
12	Application of knowledge (5%)				
13	Procedural skills (5%)				
14	Teaching initiatives / skills (5%)				
15	Research interest / initiatives (5%)				
	Net Score (100%)				
	Signature and Seal of Head of the Department / Unit Head with Date				
Scoring System					
5		Outstanding (80% and above)			
4		Excellent (70-79%)			
3		Good (60-69%)			
2		Average (50-59%)			
1		Below Average (less than 50%)			

THIRD YEAR RESIDENCY

(Palliative Medicine Core training)
END OF POSTING ASSESSMENT

Sl no.	Particulars	Quart.1	Quart.2	Quart.3	Quart.4
	From - To				
1	Punctuality and Reliability (5%)				
2	Dependability (5%)				
3	Quality of Work (10%)				
4	Bedside manners (10%)				
5	Patient Interaction / counseling (5%)				
5	Case workup (10%)				
6	Systematic reporting / presentation (5%)				
7	Case follow up (5%)				
8	Documentation (5%)				
9	Team work / Interpersonal skills (5%)				
10	Attire and self-presentation (5%)				
11	Knowledge and preparedness (10%)				
12	Application of knowledge (5%)				
13	Procedural skills (5%)				
14	Teaching initiatives / skills (5%)				
15	Research interest / initiatives (5%)				
	Net Score (100%)				
	Signature and Seal of Head of the Department / Unit Head with Date				

Scoring System	
5	Outstanding (80% and above)
4	Excellent (70-79%)
3	Good (60-69%)
2	Average (50-59%)
1	Below Average (less than 50%)

ACADEMIC PRESENTATION ASSESSMENT

Journal Article Presentation

Note: Assessment of the Journal Article presentation by the moderator MUST be completed as soon as the presentation is over.

	Topic						
	Date						
1.	Article Relevance (5%)						
2.	Article Authenticity (5%)						
3.	Explained study context and background (5%)						
4.	Understood study methodology (10%)						
5.	Understood statistical analysis (5%)						
6.	Critically analyzed the results (10%)						
7.	Understood study limitations (10%)						
8.	Able to conclude (10%)						
9.	Cross references examined (5%)						
10.	Answers audience questions (10%)						
11.	Audience Engagement (5%)						
12.	Presentation style (5%)						
13.	Clarity of presentation (5%)						
14.	Effectiveness (5%)						
15.	Audio-visual aids (5%)						
	Net Score (100%)						
Signature of the Moderator							
Grading System							
5		Outstanding (80% and above)					
4		Excellent (70-79%)					
3		Good (60-69%)					
2		Average (50-59%)					
1		Below Average (40-49%)					

Subject Seminar Presentation

Note: Assessment of the Subject Seminar by the moderator MUST be completed as soon as the presentation is over

	Topic						
	Date						
1.	Comprehensive preparation (10%)						
2.	Flow of presentation (5%)						
3.	Covers all the specified subtopics (10%)						
4.	Depth of knowledge (5%)						
5.	Content authenticity (5%)						
6.	Evidence of extensive search / research (10%)						
7.	Recent advances relevant to seminar topic (5%)						
8.	Summarizes key learning points (10%)						
9.	Time management (5%)						
10.	Answers audience questions (5%)						
11.	Audience Engagement (10%)						
12.	Presentation style (5%)						
13.	Clarity of presentation (5%)						
14.	Effectiveness (5%)						
15.	Audio-visual aids (5%)						
	Net Score (100%)						
Signature of the Moderator							

Grading System	
5	Outstanding (80% and above)
4	Excellent (70-79%)
3	Good (60-69%)
2	Average (50-59%)
1	Below Average (40-49%)

Clinical Case Presentation

Note: Assessment of the clinical case presentation by the moderator MUST be completed as soon as the presentation is over

	Topic						
	Date						
1.	Comprehensive history (10%)						
2.	All relevant points elicited (10%)						
3.	Logical order of presentation (5%)						
4.	Clarity of presentation (5%)						
5.	Nonphysical history elicited comprehensively (5%)						
6.	General and systematic examined carried out logically (10%)						
7.	All physical signs elicited (10%)						
8.	Arrived at diagnosis corroborating H&E (10%)						
9.	Differential diagnoses provided (5%)						
10.	Able to defend the diagnosis (5%)						
11.	Able to plan further management (5%)						
12.	Able to answer questions (5%)						
13.	Subject knowledge (5%)						
14.	Effectiveness (5%)						
15.	Time management (5%)						
	Net Score (100%)						
	Signature of the Moderator						

Grading System	
5	Outstanding (80% and above)
4	Excellent (70-79%)
3	Good (60-69%)
2	Average (50-59%)
1	Below Average (40-49%)

FORMATIVE ASSESSMENT OF THESIS PROGRESS

Broad evaluation of thesis progress	
Topic	
Guide	

Progress	12 months	18 months	24 months	30 months (submission)
Satisfactory / Not satisfactory				
Comments				
Signature of the Guide				

Thesis Progress 12 months after joining PG Course

Sl no.	Particulars	Grade
1	Interest shown in selecting a topic / research question	
2	Appropriate review of literature	
3	Discussion with guide and other faculty	
4	Concept note prepared	
	Net Score	
	Signature of the Guide	

Grading System	
5	Outstanding (80% and above)
4	Excellent (70-79%)
3	Good (60-69%)
2	Average (50-59%)
1	Below Average (40-49%)

Thesis progress 18 months after joining PG course

Sl no.	Particulars	Grade
1	Thesis protocol is complete	
2	Clinical Record Form and Informed Consent is ready	
3	Ethical board permission sought	
4	Active patient recruitment has begun	
	Net Score	
	Signature of the Guide	

Thesis progress 24 months after joining PG course

Sl no.	Particulars	Grade
1	Active recruitment of study patients	
2	Progress in the desired direction	
3	Interim analysis of the results	
4	Regular discussion with the guide	
	Net Score	
	Signature of the Guide	

Thesis progress 30 months after joining PG course

Sl no.	Particulars	Grade
1	Analysis, interpretation of results is complete	
2	Discussion and conclusion is complete	
3	Findings of the research presented in the department and approved	
4	Quality of the study and output	
	Net Score	
	Signature of the Guide	

Grading System	
5	Outstanding (80% and above)
4	Excellent (70-79%)
3	Good (60-69%)
2	Average (50-59%)
1	Below Average (40-49%)

Record of Interesting Cases

Outdoor patients / Indoor patients / Emergency and hospice

Date	Patient ID	Setting	Diagnosis	Care issues

Record of Procedures

Date	Patient ID	Setting	Diagnosis	Procedure

Log of Academic activities attended

Courses and Educational meetings attended

Date	Guest Lectures / CMEs / Conferences / Events / Courses / Teaching activities / Symposia / Workshops

VII. RECOMMENDED TEXT BOOKS AND JOURNALS:

Textbooks

SI No.	Book title and edition	Authors	ISBN
1.	Palliative Medicine, 1 st Ed 2008	T. Declan Walsh MD and Augusto T. Caraceni MD	ISBN-13: 978-0323056748
2.	Oxford Textbook of Palliative Medicine 5 th Ed 2015	Nathan Cherny, Marie Fallon, Stein Kaasa and Russell K. Portenoy	ISBN-13: 978-0199656097
3.	Oxford Textbook of Palliative Medicine for Children 2 nd Ed 2012	Ann Goldman, Richard Hain and Stephen Liben	ISBN-13: 978-0199595105
4.	Oxford Textbook of Palliative Nursing 4 th Ed 2015	Betty R. Ferrell, Nessa Coyle and Judith Paice	ISBN-13: 978-0199332342
5.	Textbook of Palliative Medicine and Supportive Care 2 nd Ed 2015	Eduardo Bruera, Irene Higginson, Charles F von Gunten, Tatsuya Morita	ISBN-13: 978-1444135251
6.	Evidence Based Practice of Palliative Medicine 1 st Ed 2013	Nathan E Goldstein, R. Sean Morrison	ISBN-13: 978-1437737967
7.	Psychiatry of Palliative Medicine 2 nd Ed 2011	Sandy MacLeod	ISBN-13: 978-1846195358
8.	Palliative Care Formulary (PCF) 6 th Ed 2018	Robert Twycross, Andrew Wilcock ,	ISBN-13: 978-0955254796

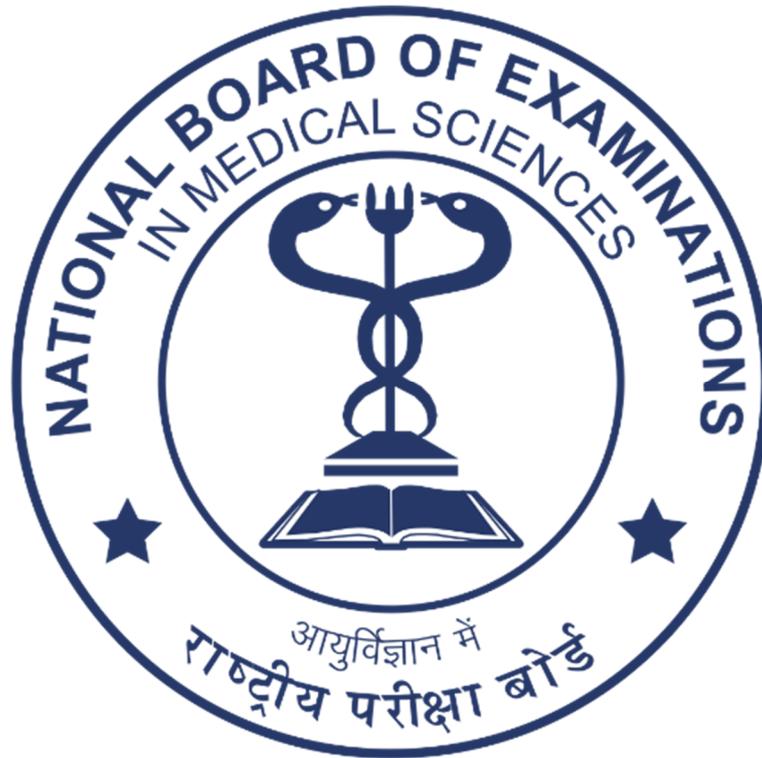
		Paul Howard	
9.	Oxford Handbook of Palliative Care	Max Watson , Andrew Hoy , Caroline Lucas , Jo Wells	ISBN-13: 978-0199234356
10.	Bonica's Management of Pain	Scott M. Fishman (Editor), Jane C. Ballantyne (Editor), James P. Rathmell	ISBN-13: 978-0781768276
11.	Introducing Palliative Care	Robert Twycross	
12.	Recognizing spiritual needs in people who are dying	Rachel Stanworth	
13.	Handbook of communication in oncology and Palliative Care	DavidW Kissane, Barry D Bultz, Phyllis M Butow, Ilora G Finlay	
14.	Palliative Care Ethics – a good companion	Fiona Randall, R S Downie	
15.	Pathways through care at End of Life	Anita Hayes Claire Henry	
16.	Chronic and Terminal illness- A new Perspective on caring and carers	Sheila Payne Caroline Ellis Hill	
17.	A Practical Handbook of Children's Palliative Care	Justin Amery	
18.	Integrated Palliative Care of Respiratory Disease	Stephen J Bourke E. Timothy Peel	
19.	Supportive Care for Renal Patient	E. Joana Chambers	

		Michael Germain Edwina Brown	
20.	Palliative Care in Neurological Disease	Judi Byrne Jane Seymour Pam McClinton	
21.	Heart Failure and Palliative Care	Miriam Johnson, Richard Lehman, Karen Hogg	
22.	Palliative Care for Children and Families	Jayne Price Patricia McNeilly	

Journals

1. Advances in Palliative Medicine
2. American Journal of Hospice and Palliative Medicine
3. BMC Palliative Care
4. BMJ Supportive & Palliative Care
5. Current Opinion in Supportive and Palliative Care
6. Death Studies
7. End of Life Care Journal
8. European Journal of Palliative Care
9. Funeral Service Journal
10. Grief Digest
11. Indian Journal of Palliative Care
12. International Journal of Palliative Nursing
13. Internet Journal of Pain, Symptom Control and Palliative Care
14. Journal of Hospice and Palliative Nursing
15. Journal of Pain & Palliative Care Pharmacotherapy

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16. Journal of Pain & Symptom Management
 17. Journal of Palliative Care
 18. Journal of Palliative Medicine
 19. Journal of Social Work in End of Life & Palliative Care
 20. Journal of Supportive Oncology
 21. Living with Loss Magazine
 22. Mortality
 23. Omega Journal of Death and Dying
 24. Palliative and Supportive Care
 25. Palliative Medicine
 26. Progress in Palliative Care
 27. Supportive Care in Cancer



आयुर्विज्ञान में राष्ट्रीय परीक्षा बोर्ड
स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार
मेडिकल एन्क्लेव, अंसारी नगर, नई दिल्ली – 110029

NATIONAL BOARD OF EXAMINATIONS IN MEDICAL SCIENCES
Ministry of Health & Family Welfare, Govt. of India
Medical Enclave, Ansari Nagar, New Delhi- 110029