ANESTHESIA, INTENSIVE CARE, PAIN THERAPY, AND PALLIATIVE CARE DEPARTMENT

DIRECTOR OF DEPARTMENT

Martin Langer
Professor of Anesthesiology
University of Milan
+39 02 2390 2139
martin.langer@istitutotumori.mi.it

UNITS

CLINICAL ANESTHESIA
Martin Langer

INTENSIVE CARE
Myriam Favaro

PALLIATIVE CARE, PAIN THERAPY, AND REHABILITATION
Augusto T. Caraceni

SUPPORTIVE CARE IN CANCER
Carla I. Ripamonti

CLINICAL NUTRITION
Cecilia Gavazzi

The department has 4 main missions:
1) Perioperative medicine
2) Treatment of chronic pain and supportive care in cancer patients
3) Palliative care and terminal support in the hospice and in-home care for patients with advanced cancer after failure of aggressive treatments
4) Safety in the hospital.

The Department has a key position in the hospital, and is involved in the medical and surgical treatment of cancer patients with very close collaboration with surgeons, medical oncologists, and pediatricians, in addition to radiologists, for many different interventional treatments.

A very relevant innovation in 2011 is the establishment of the Master Course (Master Universitario di II° livello) of the University of Milan in Palliative Medicine, one of the first active in Italy, which primarily involves our specialists in palliative care, but also many other physicians at the Institute.

clinical anesthesia

The INT runs a very intense surgical program, and the Anesthesia Team must care for challenging surgical procedures such as liver transplantation, major liver resection, peritonectomy-HIPEC, and resection of tumors in the thorax and retroperitoneum. The hospital is also a referral center for solid tumors in pediatric patients, and anesthesiologists are involved not only in the operating room (OR), but also have to care for many other procedures such as long-term central venous catheter placement and anesthesia for diagnostics and radiotherapy. In spite of a relevant shortage of OR nurses, we maintained the previous planning of surgical activity with 73 hours/week and more than 100% utilization of planned time. Quality improvement programs during 2011 were focused on patient safety (the check list and the TIME-OUT procedure) and care for acute, postoperative pain.
Patient-controlled analgesia is provided for about 40-50% of patients with major surgery, epidural analgesia with elastomeric pumps in 20-25%, while continuous intravenous opioid infusion by an elastomeric pump is the treatment chosen for the remaining 30-40%. The pain team visits patients at 3-4 days after surgery and tailors treatment as necessary. The acute postoperative pain project and the results obtained won the prestigious prize "Premio Nazionale Nottola – Mario Luzi, 2011".
Our training program for residents in the Anesthesia and Intensive Care Program at the University of Milan is well established and allows 5-7 young doctors yearly to become familiar with clinical anesthesia and pain therapy.
The projects founded by the 5% contributions of the Fondazione (the acute pain team and the central venous catheter project) are ongoing with satisfactory results.
Two research projects, led by Dr. Tognoli (on the possible opioid sparing effect of ketamine and methadone) and Dr. Piccioni (on postoperative residual curarization) are still enrolling patients.

Keywords: anesthesia, palliative care, supportive care

HEAD
Martin Langer, MD

CLINICAL RESEARCH STAFF
Mario Ammatuna MD, Maria Grazia Bonalumi MD, Anna Cardani MD, Roberta Casirani MD, Pasqualina Costanzo MD, Ilaria Donati MD, Luca Fumagalli MD, Edward Arturo Haeusler MD, Antonio Maucione MD, Silvana Migliavacca MD, Lucia Miradoli MD, Federico Piccioni MD, Andrea Poli MD; Giacomino Rebuffoni MD, Giuseppe Rigillo MD, Mara G. Roberto MD, Emiliano Tognoli MD, Alessandro Zanon MD

RESIDENTS
Camilla dell'Acqua MD, Valentina Colosio MD, Marco Carbonara MD, Giuliana Motta MD Giada Donà MD, Camilla L'Acqua MD, Marco Carbonara MD, Rosalia Paternò MD, Marta Negri MD, Ilaria Rivetti MD, Sara Mirandola MD

ADMINISTRATIVE PERSONNEL
Stefania Bettinardi, Fiorina Cantisani

NURSES
Romano Castellari (head nurse), Teresina Altana, Anchora Elisabetta, Stefania S. Andreoli, Laura Elisabetta Anselmi, Marina Balbi, Marco Balconi, Silvana Bertoli, Gabriella Bianchessi, Renata Bordonali, Rossella Brambilla, Debora Buenaventura Boada, Julia D. Burgos Baena, Claudia Calderara, Antolella Chiesa, Hipolito V. Otani, Liviu D Corbu, Maria B. Corbu, Matrona De Felice, Maria Della Croce, Simonetta Delrio, Andrea Dibiase, Maria A. DiTano, Marina Djokic, Luca G. Falcone, Federica Fiorini, Claudio Gasparro, Angelo Giannuzzi, Rosanna Giumbo, Marcella Gozzo, Mara G. Longo, Ezio Luzzi, Margherita A. Marzo, Anna Rita Mazzotta, Annamaria Morricella, Antonella Nieddu, Cosmina V. Noti, Barbara Ottonello, Lucia Orru, Maria R. Pezone, Cecilia Pifarotti, Flavia F. C. Ravasi, Manuela Riva, Stefania Ronca, Maria A. Jolanda Rosso, Massimo Sanseverino, Salvatore Santucciu, Sara Sciamanna, Paola Striglia, Ioan Marius Tere, George F. Titi, Adriana Valentini, Filippo Venezia, Mirella A. Zaninelli, Silvia Zanotto.

HEALTHCARE ASSISTANTS
Rosa Maria Benvenuto, Pierangela Carrino, Denise de Bastiani, Annuccia Delrio, Miriam Faccini, Antonio Labori, Anna Lorenti, Maria Maestri, Stefania Massella, Monica Mastrogiovanni, Maria C. Pirrotta, Maria C. Pisasale, Elisabetta Saccaggi, Elena Scotti, Carmelo Scrofani, Rosa Selvati, Rosa M. Tirone

TECHNICIANS
Maria Irene Cipolletta, Giovanni Di Bari, Gerardo Gizzi, Gianbattista Grazioli, Monica Mastrogiacomo, Luca Pedone

2011 RELEVANT NOTES

Collaborations

University of Milan: Istituto di Anestesiologia, Terapia Intensiva e Scienze Dermatologiche; Scuola di Specialità in Anestesia e Rianimazione.

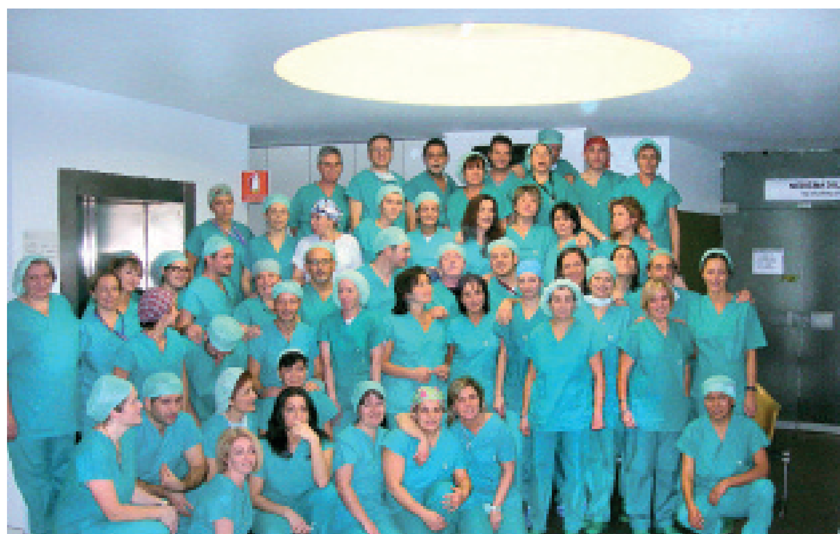
Publications

E.A.Haeusler: *Il paziente sottoposto a chirurgia polmonare* in "Il monitoraggio delle funzioni vitali nel perioperatorio non cardochirurgico" a cura di B. Allaria e M. Dei Poli. Springer Verlag Italia, 2011 ISBN 978-88-470-1722-1 DOI 10.1007/978-88-470-1723-8, pg 257-271.

Bertolini G, Rossi C, Crespi D, Finazzi S, Morandotti M, Rossi S, Peta M, Langer M, Poole D. Is influenza A(H1N1) pneumonia more severe than other community-acquired pneumonias? Results of the GiViTI survey of 155 Italian ICUs. Intensive Care Med. 2011; 37(11): 1746-55.

Contributions

Martin Langer is Director of the Master Course in Palliative Medicine (Master Universitario di II livello Medicina Palliativa)



intensive care

Monitoring and surveillance of high-risk surgical patients in the immediate postoperative period and intensive treatment of patients with life-threatening postoperative complications or organ failure of different origins is the mission of the Intensive Care Unit (ICU). The Unit is equipped with 6 ICU beds, and in 2011 admitted 581 patients (80% after scheduled surgery) for 1467 overall treatment days. Two physicians during the day and one at night are available, with the nurses of the ICU, for emergencies in the Institute, counseling for critically-ill patients in different wards, and blood gas and point-of-care analyses for all patients. 452 central venous catheters, both as elective and as emergency procedures, were placed by ICU physicians; we also started a program for the long-term catheter positioning (39 Groshong and 9 Port a Cath catheters). Liver function was investigated by DDG in 31 patients, mainly preoperatively, before major liver resections. Percutaneous tracheotomies ("Griggs" and "Percutwist"), were performed in 8 patients on prolonged mechanical ventilation. We continued to treat patients with failing liver function and hyperbilirubinemia with extracorporeal "plasma-adsorption-perfusion" during 40 sessions. We started a new activity in the surgical day hospital: sedo-analgesia in patients scheduled for limited resections of breast cancer (288 patients) and we adopted sedo-analgesia even for patients with metastatic melanoma (228 patients), gynecologic cancer (387 patients) and in plastic surgery (259 patients). This ICU has been chosen as Italian party leader in the Clean Care Project of the WHO finalized to optimize patient safety in hospital. We are also participating in a new national study (ALBIOS) on the efficacy of albumin administration for volume replacement in patients with severe sepsis or septic shock, and since 2008 we adhere to the MARGHERITA project aimed at quality improvement coordinated by the GiViTI network at the Mario Negri Institute.

Keywords: monitoring, emergency procedures, surgical day hospital

HEAD
Myriam Favaro, MD

CLINICAL RESEARCH STAFF
Valerio Costagli, MD
Fortunato D'Elia, MD
Marco Faustini, MD
Renato Manzi, MD
Laura Persiani, MD
Maurillia Rizzi, MD
Edda Merola, MD

NURSES
M. Savioli, M. Gasparini, R. Di Nino, A. Simonetti, F. Filippazzo, S. Alcamo, A. Casali, S. Sirigu, S. Romero Lemos, E. Lonetti, M. Zoanni, M. Boccola, A. Cofone, L. Morsenti, F. Montalto, R. Santini, A. Ferraresi

HEALTHCARE ASSISTANTS
G. Montecalvo, E. Zedda, R. Zicconi, C. Garzon

palliative care, pain therapy, and rehabilitation

The clinical and research program reflects the two-fold mission of the unit, namely palliative care and rehabilitation. The program is multidisciplinary and multi-professional including the control of physical symptoms, psychological and social support and the alleviation of existential suffering with early integration with antineoplastic interventions for incurable cancer. Cancer Rehabilitation provides interventions that are appropriate for the recovery of acute and chronic consequences of surgery, radiation-therapy, and medical treatments as well as to support the complications of advanced cancer. In 2011, the following results highlight the quantitative aspects of the clinical activity: 197 inpatient unit (Hospice) admissions, 2136 day-hospital admissions, 32,703 outpatient clinic treatments, 12,185 inpatients consults, and 1 home care (hospital at home) admission. The research program in 2011 continued the activity of the European Palliative Care Research Center (PRC) founded as a collaborative between our unit and the Cancer department at the University of Science and Technology in Trondheim (Norway).

The following research projects are concluded, ongoing or initiated:

- European Palliative Cancer Care Symptom Study (EPCCS)
- Pain assessment and classification, international consensus, systematic reviews, and empirical research
- Cancer pain opioid guidelines revision in collaboration with the European Association for Palliative Care
- Opioid pharmacogenetic study identified multiple genetic loci modulating individual pain response to opioids
- A multicenter national trial on cancer pain with 4 different opioids in collaboration with the Mario Negri Institute. This trial combines the assessment of genetic material.
- A phase II trial on methylnaltrexone for opioid-induced constipation (concluded)
- Systematic review on hydration and nutrition within OPCARE (7th EU framework)
- National multicenter cluster randomized trial on Liverpool Care Pathway

Keywords: cancer pain, palliative care, rehabilitation

HEAD
Augusto T. Caraceni, MD

CLINICAL RESEARCH STAFF
Augusta Balzarini, MD
Fulvia A. Gariboldi, MD
Cinzia A. Martini, MD
Luigi Saita, MD
Ernesto Zecca, MD

RESEARCH STAFF
Paola Bracchi, MD
Cinzia Brunelli, ScD
Tiziana Campa, MD
Laura Campanello, PhyD
Marco Carminati
Gianluigi Cislaghi
Daniela G.M. Ermolli, MD
Elena Fagnoni, MD
Nausika Gusella, PsyD
Andrea Magni, MD
Alessandra Pigni, MD
Carmela P. Sigari, MD
Fabio Simonetti, MD

PHYSICAL THERAPISTS
Livia I. E. Bedodi, Maria G. Blandini, Chiara Bottani, Simona Breggiè, Paola Campanini, Lucia M. Cavallini, Anna B. Cotza, Liviana Craba, Heike Feddersen, Cinzia A. Ficcarelli, Donato F. Ficchì, Alida M. E. Grossi, Chiara Piazza, Patrizia Placucci, Raffaella Sensi, Beatrice Simoncini

NURSES
Barbara Acquisto, Maria Chiara Allemano, Giuseppe Baiguini, Claudio Baratella, Barbara Benegiamo, Sara Bianchi, Giuseppina Bottigliero, Rosa A. Candigliota, Angela Carugati, Olmina Di Florio, Massimo Di Francesco, Floriana Dimo, Vincenzina Ferraro, Elsa R. Lovo, Anna M. Mazzucchelli, Rosa Olivieri, Nives Porta, Edoardo Rossetti, Arianna Rossi, Elisabetta Volpato

HEALTHCARE ASSISTANTS
Raffaela Diaferio, Maria Rosaria Lia, Nataliya Maksymova, Cristina Marras, Anna Mastroianni, Teresa Natali, Teresa Pace, Nicola Paternoster

ADMINISTRATIVE PERSONNEL
Emanuela Brusati, Loredana D'Urso, Loredana R. Illuminato

TECHNICIANS
Maria Libera Cipolletti, Martinelli Brunella

RELEVANT NOTES

Collaborations

Istituto di ricerche farmacologiche Mario Negri, Milan; Department of cancer and molecular biology Norwegian University of Science and Technology, Trondheim, Norway; Istituto Nazionale Tumori di Genova (IST); European Association for Palliative Care Research Network St Christopher's Hospice London

Publications

Caraceni A, Pigni A, Brunelli C. Is oral morphine still the first choice opioid for moderate to severe cancer pain? A systematic review within the European Palliative Care Research Collaborative Guidelines Project. Palliat Med. 2011; 25: 402-9.

Galvan A, Skorpen F, Klepstad P, Knudsen AK, Fladvad T, Falvella FS, Pigni A, Brunelli C, Caraceni A, Kaasa S, Dragani TA. Multiple loci modulate opioid therapy response for cancer pain. Clin Cancer Res. 2011; 17: 4581-7.

Contributions

Editorial board of Journal of pain and symptom management, Minerva Anestesiologica

High specialization course in oncological lymphology Università degli Studi di Milano

supportive care in cancer

The Unit (out-patient and Day Hospital settings) has clinical, educational, and research objectives aimed at the assessment, treatment, and study of prevention and treatment of side effects or toxicity resulting from cancer therapy as well as in the cure of emotional, social, and spiritual patient needs through GLOBAL CARE of patients starting from diagnosis. The primary purpose is to support, through an integrated and ancillary activity, the work of each specialist and to implement supportive medical therapy for the patient during the entire period of cancer treatment to ensure the physical well being of the patient and improve adherence to treatment protocols in terms of dose-intensity and dosing intervals. Moreover, the Unit provides real-time answers to oncological emergencies by treating patients suffering from iatrogenic toxicity. An additional objective is to give support to family, survivors, and personnel involved in daily care. The treatments carried out are compliant with the guidelines of the WHO, MASCC, ESMO, and AIOM. We work in integration with INT Units and administer the following therapies: hydration, electrolytes, diuretics, steroids, octreotide, glutathione, transfusions, antivirals, antifungals, antibiotics, analgesics, IV nutrition (not TPN), IV bisphosphonates, iron immunoglobulins, and antiemetics. All patients are regularly assessed for the presence and intensity of physical and psychological symptoms, and spiritual and social needs. They have the support of a chaplain and/or social worker and/or psychologists during the infusion of drugs. The clinical activity was significant in 2011: visits (3182); Day Hospital patients (1360); infusions as out-patient regimen (1972); transfusions (501); IV bisphosphonates (zoledronic acid) (722).

Keywords: supportive care, oncological treatments, bone health

HEAD
Carla Ripamonti, MD

CLINICAL RESEARCH STAFF
Maria Adelaide, MD
Stefania Boldini, MD

NURSES
Pietro Toma, Maria Albertina Sorgato, Rosanna Scarpa

HEALTHCARE ASSISTANTS
Chiarina Pireddu, Volunteers, Anna Aquilini, Anna Cremonesi, Adriana Cremagnani, Ivana Zaglio, Antonella Puntieri, Renata Nobili, Fulvia Sangermani

RELEVANT NOTES

Collaborations

WHO, ESMO, Multinational Association of Supportive Care in Cancer (MASCC), AIFA, Department of Clinical Pharmacology and Epidemiology, Consorzio Mario Negri Sud, Santa Maria Imbaro (Chieti); Societa' Italiana di Osteoncologia (ISO), Associazione Malati Oncologici Nove Comuni Modenesi Area Nord (AMO), Department of Oncology, Hematology and Respiratory Diseases, Azienda Ospedaliera Universitaria, University of Modena and Reggio Emilia, Italy; Psychology Unit, Center for Oncological Rehabilitation-CERION of Florence; Clinical Epidemiology Unit, ISPO-Institute for the Study and Prevention of Cancer, Florence; Department of Psychology University of Milano Bicocca; CeVEAS, WHO Collaborating Centre, Modena; Liguria Regional Coordination of Palliative Care, (IST), Genova; Palliative Care Unit ASL Bi-Biella; Campus Biomedico Roma; University of Verona (Specialties of Internal Medicine-Rheumatology and Oncology); Istituto Scientifico Romagnolo; University of Turin (Specialization in oncology)

Publications

Ripamonti C, Bandieri E, Roila F, on behalf of the ESMO Guidelines Working Group. Management of cancer pain: ESMO Clinical Practice Guidelines. Ann Oncol 2011; 22 (Suppl 6): 69-77.

Ripamonti C, Cislaghi E, Mariani L, Maniezzo M. Efficacy and safety of medical ozone (O(3)) delivered in oil suspension applications for the treatment of osteonecrosis in patients with bone metastases treated with bisphosphonates: Preliminary results of a phase I-II study. Oral Oncol 2011; 47: 185-90.

Ripamonti C, Valle A, Acerbis F, Pessi MA, Prandi C. [Project "Hospital without pain": analysis of the Italian situation before the law 38]. Assist Inferm Ric 2011; 30: 95-9.

Contributions

Updated guidelines on the use of Bisphosphonates in Bone Metastases for the Associazione Italiana di Oncologia Medica (AIOM)

ESMO guidelines "Management of cancer pain: ESMO Clinical Practice Guidelines" 2011. Adviser in the working group for the preparation and the development of the WHO Guidelines for pharmacological treatment of persisting pain in children with medical illnesses

Re-elected ESMO Faculty Member Educational Committee Supportive and Palliative Care

Re-elected Italian Member of the Palliative Care Working Group of the European Society Medical Oncology (ESMO PCWG)

Re-elected Italian Member of Directors of the International Association Hospice Palliative Care (IAHPC)

Re-elected ESMO Media Ambassador for Pain Therapy and Supportive Care topic

Cherny N, Catane R, Chasen M, Grigorescu A-C, Hassan AA, Kloke M, Olver I, Ozyilkan O, Pohl G, Ripamonti C, et al. A guide for patients with advanced cancer. Getting the most out of your oncologist. Edited by the Members of ESMO Palliative Care Working Group. ESMO press 2011 www.esmo.org/patients/.

Member of the psychosocial and spiritual Working Group Multinational Association Supportive Care in Cancer (MASCC)

clinical nutrition

Malnutrition is a well-known negative factor in the final prognosis of cancer patients as it reduces tolerance to oncological treatment, increases morbidity and mortality, and deteriorates the quality of life; nutritional intervention should be considered throughout all the different phases of oncologic therapy, from diagnosis and during surgery, to chemotherapy and radiotherapy. Prevention and early treatment of malnutrition are the main goals of the structure. In accordance with the recommendations of the European Society of Clinical Nutrition, nutritional screening is undertaken in all patients with a high risk of malnutrition, i.e. patients affected by gastrointestinal cancer, candidates for major surgery, and those affected by head and neck cancer and candidate for combined chemotherapy and radiotherapy. Patients affected by any form of malnutrition are included in a comprehensive nutrition program, which consists of nutritional status monitoring and personalized nutrition therapy mainly with artificial nutrition, both enteral and parenteral, nutritional counseling, and diet therapy. For those patients who need prolonged periods of artificial nutrition, specific training is performed by specialized nurses, logistic procedures are organized, and patients are discharged on home artificial nutrition. In 2011, 424 inpatients were included in a nutrition program and 2520 days of nutrition therapy were administered during hospitalization; 92 patients were discharged on home artificial nutrition.

Keywords: nutritional status, malnutrition, nutrition therapy

HEAD
Cecilia Gavazzi, MD

CLINICAL RESEARCH STAFF
Alessandro Sironi, MD
Giovanna Pinelli, MD

RESIDENTS
Nicoletta Guanziroli, MD
Silvia Mercuro, MD

FELLOW
Jessica Lops

NURSES
Riva Lorena, Carmen Maiorana, Franca Filicieri, Anna Armonti

HEALTHCARE ASSISTANTS
Silvia Colatruglio

RELEVANT NOTES

Collaborations

Italian Society for Artificial Nutrition and Metabolism

European Society for Parenteral and Enteral Nutrition

Publications

Gavazzi C, Colatruglio S, Sironi A, Mazzaferro V, Miceli R. Importance of early nutritional screening in patients with gastric cancer. Br J Nutr. 2011; 106: 1773-8.

Pironi L, Joly F, Forbes A, Colomb V, Lyszkowska M, Baxter J, Gabe S, Hèbuterne X, Gambarara M, Gottrand F, Cuerda C, Thul P, Messing B, Goulet O, Staun M, Van Gossum A, Gavazzi C. Home artificial nutrition & chronic intestinal failure working group of the European Society for Clinical Nutrition and Metabolism (ESPEN). Long-term follow-up of patients on home parenteral nutrition in Europe: Implications for intestinal transplantation. Gut. 2011; 60: 17-25.

Contributions

Scientific Coordinator of international meeting "Nutrition and oncology towards integration"