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SCENARI[®]O

il nursing nella sopravvivenza

Organo Ufficiale 

Associazione Nazionale Infermieri di Area Critica

30th Aniarti National Congress

Rome, 16-17-18 November 2011



Abstracts Of Congress Presentations

16 November, 2011 - Afternoon - Plenary Hall



Abstracts of Congress Presentations

Plenary Session 1;

Moderator: Elio Drigo

14.00 - 14.30

Congress Presentation

Fabrizio Moggia – Aniarti President

Elio Drigo - Aniarti

14.30 - 15.00

The global economy, finance and resource limits. History and significance of the global crisis, from financial default to the lives of the people.

Daniele Andreozzi - Political Science Department - Trieste University

Retracing the history of the global economic crisis (causes, origin, development, perspectives).

Impact of the global economic crisis on the economic performance of western countries and the quality of life of the population (health, future prospects, prosperity, consumables, safety etc.).

Focusing on the tools that can “measure” the crisis, economic growth and the quality of life.

Perspectives on the possible future scenarios: the possible outcomes of the crisis and/or the possibilities of developing “other” economic interpretations.

15.00- 15.30

The welfare state: a civilized option or a luxury we can no longer afford? The right of peoples or a government grant? The welfare dilemma in Europe beset by its financial crisis.

Roberta Carlini - Journalist and Writer- Rome

Brief presentation on the origin and development of the European welfare state, and updates on the current situation: the general reduction of welfare resources after the 2008 crisis.

The main elements of the welfare state: universality, equity, efficiency and public responsibility for citizens' rights.

Why and under what conditions public welfare

expenditure may be considered an investment; in particular, the application of such a logic in the field of healthcare. Healthcare options and scarce resources, combined with the demographic development, and the challenges and growing problems that healthcare operators and policy decision makers have to face.

The role of the State, individual initiative: the reason why, in the healthcare sector, diverging information calls for corrective public intervention on the market crash; how the presence of intermediate social organs and group participation can correct the State's “dual failure” related to the burden of bureaucracy and the degeneration of political intermediation.

15.30 - 16.00

The role of services in public healthcare and the economy.

Nerina Dirindin - Faculty of Economics Turin University

Highlights on how the protection and recovery of the population's health positively affects the development of a community's economy. Gives concrete evidence on how the resources allocated to maintenance of health are not expenditures but an investment.

Supplies data on the incidence of good assistance in the reduction of in-hospital care, enhancement of the quality of life of those hospitalized, the use of resources etc...

Furnishes some examples of the relationship between resources (materials, scientific and professional) used and the possible production outcomes of economic factors (data on the economic effects of all the safeguarding actions in both fields of healthcare and life in general - prevention of accidents - healthy and hygienic environments - ecology - investing in the prevention of diseases - schooling, culture, economic condition and health - poverty and wellbeing).

An evaluation of the use of resources for critical care activities with respect to the entire healthcare system and its impact on the overall resources of the country.

16.30 - 16.30**Social care as the exemplary expression of community life.***Antonella D'Errico - Aniarti*

A demonstration that community life is founded on the rules of mutual respect and support.

Shows the basic motives that set the grounds for an organized and universal assistance of those who are beset by problems and needs, and which signify the acceptance of community life as an absolute norm and the application of human rights in an indisputable manner.

The importance of determining the link between the aspects of concrete assistance and the level of civility of peoples and also discussing the role of inverse subsidiarity (the State that renounces the rendering of the service it should offer to oblige the citizens to become independent in very complex aspects and which are difficult to face alone - the very reason for which the public healthcare system was instituted).

Session 2; Plenary**Moderator : Elio Drigo - Stefano Sebastiani****17.30 - 18.00****Presentation of cases and critical care situations that are particularly important for the quality of nursing care and the socio-economic impact.***Stefania Bastianello - Milan*

Description of my personal 13-year experience as the caregiver of a person affected for 18 years by Amyotrophic Lateral Sclerosis (ALS), during the most advanced stage of the pathology.

- *Details of my experience working in the AISLA Non-profit organization.*
- *ALS as a "paradigm" of complex healthcare.*
- *The care needed by a complex patient and the home as the chosen healthcare setting.*
- *A cross-section of the Italian healthcare offer.*
- *Development and future perspectives: the work of the Ministerial Counsel for Neuromuscular Diseases.*

Vincenza Gancitano - Rome

Presentation of the experience of a Registered Nurse and caregiver in assisting her mother affected by Alzheimer's Disease, with particular reference to some indicators for the assessment of economic commitment.

Lucia, 72 years of age, enlisted in an observation study launched by the Ministry of Health's "Cronos Project" has been taking symptomatic drugs for Alzheimer's for eight years.

Context and experience: surveillance and assistance

activities are demanding, also psychologically, due to the continuous service, 24 hours around the clock. It is essential to optimize the patients' residual abilities to maintain their independence levels for as long as possible and also to preserve their serenity. It is important to monitor the trend of the disease.

Presentation of an assistance project, shared with the caregiver and member of the family in a unified view of the sick person and his/her social nucleus.

Considerations: socio-economic costs are great for a family and are difficult to assess. The regional services manage to intervene only in the most serious cases. An assessment of costs for the commitment and overall assistance plan and for direct nursing care is an indicator of what would be the real healthcare demands of a person living in an evolved society, attentive to the needs of the single members and the community. Worthy of note would be consideration of the savings that could arise from the planning of a systematic and professionally guided system for the maintenance of the residual abilities and independence levels the sick still possess. Considering the high and noble concept of "economy", what should also be evaluated are the psycho-social and relational effects on the sick person himself and the family and the caregivers. A truly integrated society should take this into account.

18.00 - 18.30 Critical Analysis**18.30 - 19.00 Guided Discussion**



Nursing Care in the critical area

Moderator: Nora Marinelli

8.30 - 8.45

Using the RASS scale and bispectral index for the dosing of sedatives in critically ill patients.

Serena Rocci, A. Lucchini, R. Re, M. Sasso, P. Tundo, S. Vimercati, E. Corbetta, L. Silverio, ICU, A.O.S. Gerardo di Monza - University Milan-Bicocca

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Introduction: the use of target values for the administration of sedatives, with no correlation to objective means of assessing the level of sedation achieved (RASS scale, bispectral index BIS) in critically ill patients, can lead to drug overdose situations (effects on weaning path) or underdosing phenomena (awakenings, increased anxiety, hemodynamic complications).

Aim: to value the correlation between the administered dosage of sedatives (propofol, midazolam and fentanyl) and level of sedation of the patient through the analysis of the RASS-scale and use of the index values of BIS.

Results: we analyzed 11 patients admitted to a polyvalent ICU with ARDS who underwent sedation. The table shows the average values of the population observed.

ORA	BIS	RASS	PROFOL		FENTANYL		MIDAZOLAM	
			DOSE/VELOCITÀ		DOSE/VELOCITÀ		DOSE/VELOCITÀ	
			mg/hr	ml/hr	mcg/hr	ml/hr	mg/hr	ml/hp
media	49,80	-2,83	171,83	17,15	86,49	1,68	4,46	5,47
dev.st	16,09	1,84	72,36	7,31	34,18	0,82	3,78	3,11
max	96,00	2,00	350,00	35,00	150,00	3,00	14,00	14,0
min	20,00	-5,00	10,00	0,13	0,05	0,00	0,00	0,00

Conclusions: in most patients there is a correlation between the dosage and target level of sedation. In some surveys (20%) the level of the drug is lower than the target level with optimal sedation. In 10% of the sample, the patient received an excessive dose of drugs. The use of sedation scales (RASS) and BIS technology helps to reduce the phenomenon of over/under dosage. Optimization of sedation, as evidenced by literature, can reduce by about one-third the expenditure related to the administration of sedative and anesthetic gas. Also reduced are the phenomena of awakening and emerging from sedation.

References

- Avidan MS et al. Anesthesia awareness and the bispectral index. *Engl. Med* 2008 Mar. 13: 358 (11): 1097-108.
- Sessler CN, Goshell MS, Grap MJ, et al. The Richmond Agitation-Sedation scale, validity and reliability in adult intensive care unit patients. *Am J Respir Crit Care Med* Vol. 166, pp 1338-1344, 2002 DOI:10.1164/rccm.2107138
- Karamchadami K, Rewari V, Tria A, Revinder Kumar Batrab Bispectral index correlates well with Wight Richmond Agitation Sedation Scale in mechanically ventilated, critically ill patients. *J Anesth* (2010) 24:394- 398 DOI 10.1007/s00540-010-091 5-4.
- Westy E, Brenda T, Shintani A, et al. Monitoring sedation status over time in ICU patients: Reliability and validity of Richmond agitation-sedation scale (RASS). *Jama* 2003; Vol.289, No 22: 2983-2991

8.45 - 9.00

Checking glycemic levels in patients hospitalized in the ICU at the general HRS: an observational, retrospective and monocentric study.

Luca Bessone, National Alpine and Speleological Rescue Corps

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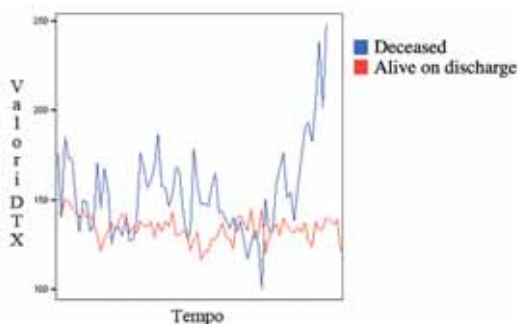
Introduction: hyperglycemia is a significant prognostic factor in critical patients, but is also potentially adjustable.

Aim: assessment of the glycemic status management of patients in the General Intensive Care Unit of IRCCS of the San Raffaele Hospital, Milan.

Materials and methods: the study took place between May to July 31, 2010. In the general ICU where glycemia checks were performed by nurses (blood sample data and control), with the medical indications to keep the values lower than 140 mg/dl. This regarded patients with continual infusion of insulin to correct glycemia for at least 24 hours.

Results: of the 42 patients selected for the study (14 surgical, 16 medical, 22 multi-traumatized) in 46.5% of the cases a normoglycemia condition was maintained (110-140 mg/dl), while 26% were slight hyperglycemic cases (140-180 mg/dl). Out of the more than 4,976 measurements taken, there were 21 cases of mild hypoglycemia (60-110 mg/dl) and two with

severe hypoglycemia (< 60 mg/dl). There were no statistically significant differences between the glycemia of diabetic and non-diabetic patients. Glycemic values of patients who died in the intensive care (7 cases) were clearly higher than those who were discharged alive. The average time taken to pass from hyperglycemia to normoglycemia was 8.3 hours.



Conclusions: intensive monitoring of glycemia is a standard procedure for Intensive Care patients, even though, at present, there is no unified opinion in the international scientific community as to the range to be maintained. A validated instrument could guide professionals in the management of glycemia, to avoid fluctuations and thus further protect the patients.

9.00 - 9.15

The VAP challenge faced by general CPR nurses at the general IRCCS of San Raffaele Hospital in Milan.
M.G. Villa, A. Negro, M.T.Cibelli, L. Masini, G. Torricelli, C. Filippi, A. Catino, M. Dossi, L. Rinaldi, G. Ponzetta, C. Leggeri, M. Marazzi, General IC San Raffaele Hospital I.R.C.C.S. Hospital, Milan

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Introduction: ventilator Associated Pneumonia (VAP) is Nosocomial pneumonia that affects patients under mechanical ventilation (VAM), and is associated with a high mortality rate and morbidity, besides having a strong economic impact. There is thus the need for its effective prevention wherein nursing care plays a fundamental role.

Objectives: to show the importance of nurses' training in reducing VAP.

Materials and method: a survey was carried out through the drawing up of a validated questionnaire to evaluate the knowledge of the nursing staff in General ICUs in the San Raffaele Hospital of Milan on the scientific facts regarding VAP prevention. On the basis of the data gathered, a training plan was created, consisting of three one-hour meetings (March 2010) with the nursing staff to discuss the question-

naire results, VAP incidence in Italy and in the Operating Unit (data of GiVITI-Project Margherita), international guidelines and the following nursing practices to be adopted: hand hygiene, position of the head-board of beds, oral cavity hygiene, aspiration of subglottic secretions and frequent replacement of aspirating and ventilator circuits, (AACN VAP prevention Practice Alert), affixing of explanatory posters at the patients' cubicles and quarterly feedback. Objective set: reduction of VAP by 40% in nine months (April -December 2010).

Results: the number of VAP cases for 1000 days of VAM pre-VAP in 2009 was at 13.4 and 14 in the trimester January-March 2010. In the succeeding trimester, at the educational intervention, the number of VAP patients for 1000 days of VAM was at 13.4, in the second at 8.9 and reached zero in the last trimester. The incidence in 9 months dropped to 38%.

Conclusions: prevention or great reduction of the number of VAP cases is correlated to the degree of expertise. The diffusion of the data gathered, raised the knowledge level of the nursing team, produced tangible results in the life of the patients, and was a strong incentive to enhance a new professional awareness.

9.15 - 9.30

Prevention of iatrogenic anaemia and limitation of operating costs associated with transfusion in patients undergoing cardiac surgery: role of closed circuit VAMP method for blood samples.

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Background: the use of blood components in patients undergoing cardiac surgery is remarkable. Several strategies in the perioperative period reduce the impact of transfusion in patients with uneventful postoperative paths. Anaemia arising from the frequent withdrawal of blood samples is a standard feature in the long-term hospitalization of critically ill patients undergoing cardiac surgery.

Purpose: to evaluate the number of transfused units of packed red blood cells (GRC) using the closed-loop VAMP system versus standard open circuit for blood samples, and compare the operating costs of these two different methods.

Material and Methods: the study compares the effect on iatrogenic anaemia according to the two different blood sampling methods used: open circuit system (3.09 Euros / day) vs. closed-loop system VAMP (5.50 Euros / day). Transfusion trigger: Hb <8.5 g / dl (Hct 25%). One unit of GRC: Hct 50%, 300 ml volume, price: 180 Euros. Ten daily blood samples average per patient.

Results and Conclusions: the application of VAMP for blood samples in patients undergoing cardiac surgery with hospital stays > 20 days saves one unit of GRC and 132 Euros per patient. In the CardioVascular ICU of Cuneo, during the first six months of 2010, 4.3% of patients had a hospital stay > 20 days; had the VAMP been used, we could have saved 2,665 Euros and transfused 20 GRC units less (18%). VAMP is therefore an effective way of reducing iatrogenic anemia and related operating costs. It is also ethically significant to implement measures able to reduce the impact of transfusion, since such therapeutic resources are scarce and due to their potentially adverse effects should be used only in critical situations.

References

- Koch CG, Li L, Sessler DI, Figueroa P, Hoeltge GA, Mihajlevic T, Blackstone EH. Duration of Red Cell Storage and Complication after Cardiac Surgery. *N England J Med* 2008; 358: 1229-39
- Mukhopadhyay A, Yip HS, Prabhswamy D, Chan YH, Phua J, Lim TK, Leong P. The use of blood conservation devices to reduce red blood cell transfusion requirements: a before and after study. *Critical Care* 2010; 14:R7
- Macisaac et al. The Influence of a Blood Conserving Device on Anemia in Intensive Care Patients. *Anaesthetic Intensive Care* 2003; 31: 653-657

9.30 - 9.45

Implantable Left Ventricular Assist Devices (LVAD). A comparison between the quality of life and cost-effectiveness: can the price of life be gauged?

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Introduction: to be able to give the increasing number of heart failure patients the opportunity for treatment, over the last decade interest has increasingly focused on mechanical circulation- assist devices.

Objective: this article offers an analysis of the quality of life in patients availing of Left Ventricular Assistance Device (LVAD) implants and the economic aspects regarding the use of such devices in cardiovascular care.

Materials and methods: we conducted a literature research on LVAD implantation in the last ten years and observed the case of a patient who underwent LVAD implantation in order to compare his clinical pathway with those of other patients with basically the same disease.

Results: thousands of Euros are spent each year for the management of patients with heart failure who cannot undergo heart transplants and are thus obliged to avail of long-term hospitalization, resulting in high costs for the NHS. The implantation of VADs denoted

a decrease of the length of hospital stays by 50%. The re-hospitalizations were due to complications that did not regard the heart and cardiovascular system, and were always short-term. On the whole, we can say that there is a good balance between cost-effectiveness and the increased quality of life in patients who avail of VAD implantation.

Conclusions: VADs are valid alternatives for patients suffering from frequent heart failure which enhances the quality of their lives. The analysis of costs however did not encompass factors regarding pain, distress, social integration, life expectancy and other problems. This has led us to conclude that it is not really impossible to gauge the worth of life.

References

- Bielecka, Wierzbicka M, Goch JH. The Ventricular Assist Device: A Bridge To Ventricular Recovery, A Bridge To Heart Transplantation or Destination Therapy?, *Cardiology Journal*, 2007 vol 14N 01 pp;
- Dew MA, Kormos RL, Winowich S et al. Quality of Life Outcome in Left Ventricular Assist System Inpatients and Outpatients. *ASAIO J*, 1999; 45: 218-225.
- Mancini D, Goldsmith R, Levin H, Benjaminovitz A, Rose E, Catanese K, Flannery M, Oz M. Comparison of Exercise Performance in Patients with Chronic Severe Heart Failure versus those with Left Ventricular Assist Devices, 1998.

9.45 - 10.00

Clinical advantages of using the Miniature Extracorporeal Circulation System called Mini-Cpb Versus Standard Cpb in patients undergoing myocardial revascularization.

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Introduction: in the management of cardiac patients in the ICU/Ward, it was seen that an increase in inflammatory response led to a reduction in lung complications - increased content of extracellular fluid - reduction of arterio-alveolar oxygen - deficiency of coagulation factors - early kidney damage, and in some cases, even reached the point of "multi-organ failure." The current trend is to develop technologies that design and implement oxygenating circuits and systems that are increasingly more biocompatible and compact, and can reduce pro-inflammatory response of the organism, thanks to the reduced contact and activation surface.

Materials and methods: the population studied was selected, taking into account the following **exclusion** criteria:

Age <40 years, coronary artery bypass grafting associated with other cardiac or extra-cardiac surgery, known Coagulopathy, EF <45% preoperative echo-

cardiography, treatment with corticosteroids and/or immunosuppressants during the 30 days before surgery, treatment with anti-inflammatory drugs in the 5 days before surgery, CRF patients with ongoing systemic infection, primitive and/or acquired immunodeficiency, procedure for urgent / emergency patients with severe neurological deficit, with documented anemia Hb <8 g / dl. At our Department, the 80 patients (mean age 66.4 ± 8.2 years) who underwent CABG isolated surgery, met the inclusion criteria for the study. Of these, 40 were treated by myocardial revascularization with CPB standards, and the remaining 40 were subjected to the same treatment but with the use of mini-CPB. The data on population of patients under study was obtained retrospectively.

Objectives: the aim of this study was to evaluate the results of the use of **Mini-CPB**, and describe the inflammatory markers and indices of early renal damage, compared with the traditional results of the CPB.

Tools: to evaluate a hypothetical difference in inflammation between the two methods. The biological markers (Pro-inflammatory) analyzed in the study were the mucoprotein acid, haptoglobin, CRP, and ESR. As regards the renal biological markers (early kidney damage) the study analyzed the performance of creatinine, CI Creatinine, Cystatin C, and NGAL

Conclusions: our results showed that the mini-CPB is a good evolution of the traditional CPB. This is evidenced by the results of the study, in particular: reduction in assisted ventilation time, **average length of stay in the ward** and ICU, and postoperative bleeding, resulting in improved quality of care and decrease in the average hospitalization costs, as compared to that for patients treated with traditional methods.

10.00 - 10.15

Can self-care in patients with heart failure reduce their hospital admissions?

Stefano Pepe, Carmen Nuzzo, University Polyclinic "Agostino Gemelli" Roma.

Ercole Vellone, Antonello Cocchieri,

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Background and Purpose: heart failure (HF) is a chronic condition with a significant social and economic impact. 1.1%, of the population in Italy is affected by HF but this percentage is expected to rise due to the aging of the population. Several international studies have shown that if patients with HF practiced effective self-care, the rates of emergency department visits and hospital admissions would decrease. This pheno-

menon is largely unexplored in Italy.

The purpose of this study was to investigate the relationship between self-care abilities in HF patients and cognitive impairment, comorbidity, and the number of hospital admissions in the last year.

Materials and Methods: a descriptive and retrospective design was used to study 659 HF patients from 16 cardiovascular clinics across Italy. Those who suffered acute coronary events in the last three months were excluded from the study. Patients were asked to report the frequency of hospital admissions over the last year and were studied with the following instruments: Self-Care of Heart Failure Index (SCHFI) (which measures three dimensions of self-care: self-care maintenance, self-care management and self-care confidence), Mini-Mental State Examination, Charlson Comorbidity Index and Barthel Index. Socio-demographic data, NYHA class, and the duration of the disease were collected as well.

Results: patients had a mean age bracket of 72.63 years (SD 11.70) and were equally distributed among NYHA classes. The SCHFI scores ranged from 55 to 63 out of 100 in the three scales (the ideal score is > 70). When the variables studied were entered in a regression model only self-care maintenance and comorbidity resulted to be predictors of frequency of hospital admissions. In addition, in comparing patients who had been hospitalized at least once in the last year with those who had never been hospitalized, the former had significantly higher scores at the SCHFI than the latter ($p < 0.02$).

Conclusions: the results of this study confirm the importance of educating HF patients in effective self-care that demonstrated to be, along with co-morbidity, a predictor of hospital admissions.

10.15 - 10.30 Discussion

Coffee Break

17 November 2011 - Morning - Plenary Hall



118/A&E Dept

Moderator: Silvia Scelsi

10.45 - 11.00

Ambulance-based Nursing Care in the emergency medical system of the city of Bozen; enhanced potentialities and economic investment.

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Introduction: the main mission of pre-hospital emergency medical services (EMS) is to provide prompt and qualified service to the citizens: in addition, the complex and multidisciplinary EMS organization must consider other important factors such as the effectiveness of the activity and cost containment.

Main objectives: the aim of this work is to analyze the activity of a nurse-staffed emergency ambulance in the urban setting of Bozen, by assessing the impact of nurse-delivered healthcare to citizens and the emergency medical system for the purpose of improving the provincial health service.

Methods: retrospective analysis of nurse-ambulance interventions in the city of Bozen between January and December 2010 through revision of mission boards.

Results: the nursing ambulance of Bozen was dispatched 1,595 times out of a total of 8,428 interventions performed in the reference area during 2010: in 35% of the missions performed, 598 were specific nursing procedures (vascular access, drug delivery through protocols and other procedures). In 16% (246) of cases, patients were treated at home.

Dispatch operators aim to streamline the resource by sending the nurse-staffed ambulance for interventions classified as medium or high criticality, or for well identified health needs (e.g. urinary catheter replacement). The analysis shows that, when properly used, the nursing ambulance is beneficial for patients in terms of the reduction of free therapy intervals for time-dependent diseases, and likewise for the organization of the health system, thanks to cost-containment.

Conclusions: future objectives of the Bozen Provincial EMS are to enhance the skills of nurses through the establishment of new treatment protocols and procedures besides those currently in use, and to increase the presence of nurses in emergency vehicles

within the province, through a training program for 30 operators.

11.00 - 11.15

Nursing protocols for pre-hospital management of severe asthma and anaphylaxis. The ARES 118 Lazio experience.

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Introduction: the regional 118 emergency service in Lazio, is run by the Regional Emergency Healthcare System (ARES 118). To handle emergencies of allergic/asthmatic patients in pre-hospital settings, ARES launched a teamwork program effective May 2009, with Federasma and Alama and the more important Scientific Companies in the sector.

Aims: to develop and activate operational procedures and protocols for the emergency management of asthmatic and allergic patients through the training of personnel assigned to emergency services operating within the ARES118 facility.

Material and methods: the operating protocols for the management of patients suffering from acute asthma attacks and patients with anaphylaxis were developed following a strict methodology such as the identification of research requirements, literature review, identification of specific instructions, description of patient-care pathways, and translation of pathways studied into operating protocols. A feasibility study was then undertaken to introduce two protocols in clinical practice, which involved a sample emergency station, still ongoing, so as to verify the consequences of the application of these protocols in terms of efficiency and effectiveness of the 118 service.

Results: in 2010 two protocols were produced, and a training path was laid out with the selection of 14 pilot stations. In the 1st semester of 2011, 15 editions of the course were held for 100 nurses. Protocol activation occurred in the month of April and was applied in 25 cases. The cases will be subjected to clinical audits to identify possible critical points and their relevant solutions.

Conclusions: the introduction and use in the regional 118 service, of two nursing protocols that are com-

plex from the therapeutic viewpoint, were initially met with a cultural type of diffidence which, however, was overcome when the nurses saw in a concrete manner that the application of these clinical protocols supported their own activities and resulted in the improvement of care for the patient.

11.15 - 11.30

Changes in the state of consciousness, treatment of hypoglycemia in the regional emergency activity, an ARES 118 analysis of the 2010 activities.

Luca Tesone, S. Scelsi, C. Girardet, G. Marcianesi Casadei, A. De Luca, Regional Healthcare Unit for Emergency Healthcare - ARES118 LAZIO

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In 2008, the ARES 118 service started off with its project targeting improvement of its clinical emergency services through the introduction of healthcare protocols.

The quality of healthcare services involves nurses working in emergency vehicles through a capillary synergy between the specific regional healthcare units and the hospital. The citizens attended to by the ARES 118 units received standardized treatments that conformed with international guidelines.

The data for this study was the **preliminary results** of a complex analysis undertaken in 2010. The nurses treated full-blown hypoglycemic cases on the basis of the healthcare system's protocols. About 22,000 emergency charts were analyzed from all the Lazio Region's ARES stations, and the data was recorded on a Database (Access) and analyzed with EpiInfo.

The sample analyzed represented about 5% of all the emergency calls answered throughout the Region.

On the basis of the indicators given in the protocol we examined the completeness of data gathered, cases treated, clinical conditions of our patients and their treatment outcomes.

The sample under study consisted of 5.5% of all the cases observed, and most were women (50.40 %): the age bracket was prevalently over 60.

Of the patients under study, 85.9% suffered from diabetes but the interesting note was that 7.6% had received therapeutic treatments without being aware of their diabetic conditions. This meant that the patients discovered their clinical conditions the moment the emergency service intervened. Of the patients treated, 63.6% were admitted to hospital after treatment, whereas 36.40 % decided not to be confined.

Remarks: the study underlined the importance of protocols such as the assessment of the healthcare education of patients performed by nurses, that result in cost-effectiveness due to the fact that patients did not

have to make use of the Accident and Emergency (A&E) service, enhancing suitability of clinical treatments given during emergencies. This type of approach not only allows the quality of clinical care to be analyzed but also its economic impact on healthcare pathways.

References

- Cain E, Acroyd-Stolarz S, Alexiadis P, Murray D. Prehospital hypoglycemia: the safety of not transporting treated patients. Scotia. Canada B4AIE5 2004
- Holstein A, Planschke A, Vogel MY, Egbert EH. Prehospital management of diabetic emergency, a population-based intervention study. Department of Medicine and Institute of Anaesthesiology, KlinikumLippe-Deilmold, Germany 2003
- D.P.R. N° 467600 of 27/03/1992; Art. 10 "Nursing Staff Services".

11.30 - 11.45

Advanced Clinical Triage versus global triage, presentation of results

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Over the last years, the phenomenon of overcrowding in the Emergency Department has been subjected to numerous surveys, aimed at creating and implementing organizational and management models that can solve the problem of excessive and uncontrollable flow of patients in the Emergency unit. Overcrowding firstly impacts Wait Times of patients in the Triage area, which often results in a passive and useless standby.

The "Advanced Clinical Triage" model targets the transformation of Wait Times in the reception area into an area for the implementation of necessary diagnostic assessment.

The survey compared the traditional triage model (global triage) with advanced clinical triage, analyzing the multiple aspects involved: time lapse in waiting for therapy, the suitability of diagnostic assessments requested in triage, the total time for Emergency unit processing, as well as the utility of achieving rapid diagnostic reports needed.

The survey was performed between November 5, 2010 and July 28, 2011 through the analysis of data taken from 2,754 dossiers (1,423 patients processed with the traditional triage model, 1,331 patients treated with the advanced clinical triage model). The diagnostic paths initiated after triage (hematicochemical tests, hemogasanalysis, electrocardiogram, radiodiagnostics) were related to some pathology types that are more commonly found in the operating Emergency unit such as:

chest and abdominal pains, strokes, dyspnea and small traumas.

Analysis of the results obtained showed: the drastic reduction of the time lapse before therapy - in 98.3% of cases, the diagnostic procedure initiated by the triage was considered appropriate. The drastic reduction of total processing time led to the consequential decrease of Wait Times in the triage area.

To conclude, the study demonstrated that the application of the "Advanced Clinical Triage" model combined with fast-track systems is a solution to overcrowding in the Emergency Department.

Bibliography

- Devkaran S, Parsons H., Van Dyke M, Drennan J, Rajah J. The Impact of a fast track area on quality and effectiveness outcomes: A Middle Eastern emergency department perspective. *BMC Emergency Medicine* 2009, 9,11.
- Kwa P., Blake D. Fast track: Has it changed patient care in the emergency department? *Emergency Medicine Australasia* 2008, 20,10-15.
- Quattrini V., Swan B. Evaluating Care in ED Fast Tracks, *Journal of Emergency Nursing* 2009.

11.45 - 12.00

Effective Fast Track Systems as a strategy to optimize resources and improve the quality of healthcare services.

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Background: overcrowding in the Accident and Emergency Department (A&E) is a diffused problem worldwide, most often caused by improper management that leads to long Wait Times. Literature reviews say that an effective method in facing this issue is the installation of a Fast Track, and post-Triage area, where through the application of specific protocols, nurses can handle some types of noncritical patients with the help of a doctor.

Aim: to explore the effectiveness of Fast Track systems in the A&E department in terms of reduced Wait Times, through the comparison of the data of two hospitals in the Venice Region.

Materials and methods: admissions (in 2009) to the emergency departments of two third-level hospitals of Triveneto were compared and classified with green and white codes. ED1 availed of the Fast Track system run by nurses according to specific protocols; ED2 did not avail of the system. Both EDs made use of the same nursing Triage system.

Results: in ED1, 69.4% of the total admissions consisted of white and green codes together, whereas in ED2 this same category totalled 83.7%. In ED2, the white codes scored 13.4% of total admissions, while

in ED1, they consisted of 57.5% (divided into 41.5% white codes handled in the green medical area, and 16% white codes handled through the Fast Track unit). The mean Wait Times was 35 minutes for green codes in ED1, and 40 minutes in ED2. For the white codes, it was 70 minutes in ED1 and 50 minutes in ED2. Of the white codes handled in the Fast Track of ED1, 16 % waited for an average of 18 minutes.

Conclusions: the presence of Fast Tack in ED1 allowed a faster clearance of 16% of the patients, whose mean Wait Time was 18 minutes. This strategy enhanced the quality of the service provided, and made excellent use of the nursing staff's expertise and professional independence.

Bibliography

- Devkaran S, Parsons H, Van Dyke M, Drennan J, Rajah J. The Impact of a fast-track area on quality and effectiveness outcomes: A Middle Eastern emergency department's perspective. *BMC Emergency Medicine* 2009, 9,11.
- Kwa P, Blake D. Fast track: Has it changed patient care in the emergency department? *Emergency Medicine Australasia* 2008, 20,10-15.
- Quattrini V, Swan B. Evaluating Care in ED Fast Tracks, *Journal of Emergency Nursing* 2009.

12.00 - 12.15

Nurse-managed X-Ray imaging and "Fast-Track" triage pathways. What is the impact on care in the Emergency Room?

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Preface: overcrowding in ER causes long waits which, barely tolerated by patients, leads not only to loss of care quality, but also to a higher risk of adverse events. The ER of Senigallia-Italy, characterized by almost 32,000 admissions per year and highly influenced by seasonal periods, adopted fast-track pathways managed by the Triage Nurse, with the aim of handling such critical situations in spite of the limited budget available.

Scope: the research aims at assessing the impact of "Fast-track" pathways, and "early triage through x-ray imaging diagnostics" by moving the service right to the ER itself, as of June 1, 2011 (initial experimentation until November 2011), and especially, determining whether the goal of reducing Wait Times of minor colour codes will be reached.

Materials and Methods: analysis of the following data: average Wait Times per color code, average length of visits (from admission to the waiting room to

discharge) per color code, number of patients leaving the ER before the medical examination and assessment of the average Wait Times and length of visits for pathologies with a "Fast-Track" pathway.

Results: analysis of the data collected up to now, showed an average waiting time reduction of 12.37% for green codes and 22.2% for white codes. Data collection and experimentation are still under way. Data collected up to now refer to the period, June 1-30, 2011. Comparisons were made using the 2010 data. The most encouraging results were the 6.8% reduction of the waiting time and the 49.1% reduction of the length of visits for the green trauma codes, i.e. 27.15% of the entire Emergency Room activities.

Conclusions: "Fast-Track" pathways enhance, without increased costs, ER efficiency as well as the sense of responsibility and awareness of the role of Nurses.

References

- Leora I. Horwitz, et al. US Emergency Department Performance on Wait Times and Length of Visit. *Ann Emerg Med.* 2010; 55:133-141

12.15 - 12.30

Early EGA in triage for patients affected by COBP (Chronic Obstructive Bronchopneumonia). Proposal of a new and different system that can speed up intervention times with faster and cost-effective hospital admission decisions.

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Introduction: triage is a decision-making dynamics, based on the implementation of scientific, methodological processes able to establish the gravity of a patient's clinical conditions, identifiable through the use of a coding system that indicates the care priority (definition GFT Turin).

In the Emergency Department facilities of the University Polyclinic of Tor Vergata in Rome, an advanced type of Global Triage system is used (following the guidelines of the Lazio Triage Model) where the duly trained operator, according to the patient's symptoms, independently performs ECGs and/or blood tests and/or Hemogasanalysis.

Regarding this issue we presented a therapeutic diagnostic path for patients with Chronic Obstructive Bronchopneumonia which would allow the patient to be cared for rapidly, but above all, would reduce the length of hospitalization and related costs, thanks to the use of Continuous Positive Airways Pressure (CPAP) ventilation systems.

Aims: to deepen knowledge about interventions that may be introduced in the emergency healthcare areas to achieve fast diagnostic and therapeutic paths for patients affected by COBP.

To raise awareness, in all healthcare operators, of the need to reduce the variability of clinical behavior in order to distinguish a minor non-specific symptom from a potentially serious situation with great risks for the patient.

To optimize diagnostic evaluations by nurses and the treatment of patients affected by COBP, thus reducing hospitalization and related costs.

12.30 - 12.45

The role of nurses in the management of skin lesions in the ER.

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Introduction: according to estimates of the international Wound Healing Society, there are approximately 12.5 million people affected by skin lesions that do not heal or with slow healing processes. Cost-containment strategies that tend to use cheaper medications could in reality increase the overall costs. Another economic aspect lies in the medical lawsuits involving emergency doctors (11%) arising from lesions to tendons, nerves, ligaments or problems related to infections and/or the presence of foreign bodies in wounds. On these terms, the nurses in charge of Wound Care (WC) acquire an important role in handling skin lesions in the ER also in terms of clinical care and impact on costs.

Problem: a study published in 2007 evidenced that 5.4% of patients are admitted to the ER due to traumatic wounds and that 10.3% of all the patients examined are subjected to wound care procedures. The potential negative effects of the bad management of skin lesions range from unsatisfactory aesthetic and/or functional results up to septicemia, thus underlining the urgency for nurses working in the ER to acquire expertise and experience in assessing and handling traumatic skin lesions and wounds.

An interesting study performed in Scotland at the Minor Injury Units described the evolution of expert WC nurses working in ER units in Scotland.

In Italy, despite the evidences regarding advanced medications available, care facilities persist in using gauze medications, a practice that is attributable mainly to lack of know-how in the field of Wound Care.

Conclusion: the efficacy of the Minor Injury Units, confirms how the presence of expert WC nursing staff can be a valid strategy for the management of wounds

in the ER and can launch the use of more suitable treatment in relation to the type of wound and the planning of successive care paths. To this end, it would be strategic to identify integrated management models for continuity of care between the intensive care and assistance units within the territory.

Key words: traumatic wounds, wounds care emergency department, traumatic injury, management of wounds in the ER, economic impact of the Minor Injury Units.

Bibliography

- Trabona R. Becoming wound care professionals: ethics, competences and responsibility of nurses in the new millennium. The Inter-regional Congress AIUC section of Lombardia and Triveneto, Padua 17-18 April 2009.
- Romanelli M, Vuerstack JD, Roders LC, Armstrong DG, Apelquist J. European Wound Management Association (EWMA). Positioning document. Wounds that are hard to heal: a holistic approach. Economic charges for wounds that are hard to heal. London 2008. Pp. 15-17.
- Nawar EW, Niska RW, Xu JX. CDC National Hospital Ambulatory Medical Care Survey: 2005 Emergency Department Summary. Advance Data. June 2007; 386: 1-32. www.ncbi.nlm.nih.gov/pubmed/17703794
- Fotheringham D, Dickie S, Cooper M. The evolution of the role of the Emergency Nurse Practitioner in Scotland: a longitudinal study. J Clin Nurs. 2011 3 Jul 2011. www.ncbi.nlm.nih.gov/pubmed/21722222
- Caula C, Aposoli A. Care and assistance given to patients with severe wounds and chronic ulcers. In collaboration with the scientific committee AISLEC. Ed. Maggioli 2010; pp. 377-389.

12.45 - 13.00 Discussion

13.00 - 14.00 Lunch Break



17 November 2011 - Morning - Conference Room 1



Economy, Organization, Resource 1

Moderator: Stefano Sebastiani

8.30 - 8.45

Are demands for nursing staff and the incidence of adverse events related issues in the ICU?

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Milva Peruta, ICU, A.O. Bolognini - Seriate (Bergamo)
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Introduction: adverse events can also be prevented by the organization of nursing tasks, and the proper planning of nursing resources available.

Objective: to detect adverse events in intensive care using the detection system (NAS Nursing Activities Score) and check whether the incidence of such events are related to a less organized and limited work force compared to the actual needs estimated.

Method: the 240 patients selected were hospitalized from December 15, 2009 to May 9, 2010 in General Intensive Care - S. Gerardo - Monza. The amount of care/day per patient was determined through the NAS. The data was then correlated with the actual presence of nurses/day beds and the rate of employment during the study period. The events traced in accordance with the corporate reporting system were: self-produced accidental extubation by the patient, errors in the drug therapy cycle, device-caused LDP, errors in the placement of biomedical equipment, and removal of drains.

Results: there were 45 adverse events observed in the population (240 patients - 145 days),

On the days when adverse events occurred, the difference between ideal and NAS requirements stood at -7.68 (\pm 8.84%). On eventless days, the difference was 0.44 (\pm 7.96%) (p. value 0.0001). The conversion of the NAS support in minutes showed that on days with adverse events there was a deficit in assistance minutes per patient amounting to 110.66 (\pm 127) minutes. On smooth days there was an excess of nursing require-

ments, although at a minimum of 6.40 (\pm 115) minutes/patient.

The events with patients having medium-NOS was found to be 81.88 (\pm 10.00). NAS average patients without events: 73.54 (\pm 13.83) (p = 0.001). The events were distributed evenly throughout 24 hours.

Conclusions: in the period observed, adverse events occurred mainly when the delta between the index and the Nas resource level was greater.

References

- Needleman J, Buerhaus P, Pankratz VS et al. Nurse Staffing and Inpatient Hospital Mortality. *N Engl J Med* 2011;364(11):1037-1045
- Needleman J, Buerhaus P, Mattke S, Stewart M, Zelevinsky K. Nurse-staffing levels and the quality of care in Hospitals. *N Engl J Med* 2002;346:17 15-22
- Iken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout and job dissatisfaction. *JAMA* 2002; 288:1987-93.
- Tarnow-Mordi WO, Hau C, Warden A et al. Hospital mortality in relation to staff workload: a 4-year study in an adult intensive-care unit. *Lancet* 2000; 356: 185-9.
- Lucchini A, Chinello V, Lollo V et. al. The implementation of NEMS and NAS systems to assess the nurse staffing levels in a polyvalent intensive care unit. *Nursing care and research*, 2008; 27:18-26.

8.45 - 9.00

Review: Assessing ICU Nursing Staff Requirements through a Scoring System.

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Background: intensive care units are facilities where the organization of nursing activities are strictly associated to the presence of hospital personnel on duty. Some differences in the workforce levels, such as understaffing can cause negative outcomes for patients, in the same way as overstaffing can represent a significant wastage of human resources.

Methods: a literature review was conducted, through

consultation of the main data bases (PubMed, Cochrane Register of Controlled Trials, Cochrane Database of Systematic Reviews, Cinhal and ProQuest) and examination of studies on adults in the general ICU without time limits, and the use of the following keywords: Nursing Staff, Hospital/utilization* [MeSH] Intensive Care Units/manpower*[MeSH] Critical Care/organization & administration*[MeSH].

Results: through the research we found 108 citations, 85 after double records exclusion; 35 were irrelevant articles. Of the rest, 22 full-texts were found and 12 of these were included in the research. Relevant articles showed that over the last years, a lot of tools for the evaluation of nursing staff requirements have been studied and validated; the NAS (Nursing Activities Score) resulted to be the best tool used to determine personnel equipment in the ICU.

Conclusions: routine usage of this scoring system for staff requirement allows for a correct placement of human resources, to guarantee the best nursing care on the basis of patients' requirements.

References

- Miranda DR, Nap R, de Rijk A, Schaufeli W, Iapichino G; TISS Working Group. Therapeutic Intervention Scoring System. Nursing Activities Score. *Crit Care Med*;31(2): 374-382
- Lucchini A, Chinello V, Lollo V, De Filippis C, Schena M, Elli S, Sasso M, Pelucchi G, Poloniato L, Martino M, Costanzo A, Vimercati S. The use of NEMS measurement system (Nine Equivalent of Manpower Score) and NAS (Nursing Activities Scores) to determine the need of nursing staff in the ICU multipurpose nursing care. *AIR*, 2008;27(1):18-26
- Padilha KG, de Sousa RM, Queijo AF, Mendes AM, Reis Miranda D Nursing Activities Score in the intensive care unit: analysis of the related factors. *Intensive Crit. Care Nurs*. 2008;24(3):197-204

9.00 - 9.15

A survey of nursing workloads in the Intensive Care Unit assessed with the Nursing Activities Score: a prospective observational study.

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Background: from the 1970s onwards, the evaluation of nursing workloads in ICUs was done through the use of different rating scales. In 2003, Miranda developed a scale named Nursing Activities Score composed of 23 items that calculated the time percentage of direct nurse-patient activities. The sum of the scores of the 23 items is between 0% and 177%. A score of 100% stands for a nurse/patient ratio of 1:1, while a score of 50% is equivalent to a ratio of 1:2.

Objectives: the primary objective of our study was to conduct a survey of nursing workloads through the NAS in the Anaesthesia and ICU Departments of the Hospital in Udine (Italy), composed of three different units.

The secondary objectives were:

1. to analyse the correlations between nursing workloads and patients' diagnoses and agitation/sedation scores;
2. to compare the global score of each ICU with nursing resources during shifts, in accordance with the different daily workloads.

Methods: during a six-week period (2011) every nurse evaluated the patients under his/her charge in every shift using the NAS. In each ICU, researchers collected data about patients' clinical characteristics, nursing staff and nursing activities. Data was recorded, entered into an electronic database and analysed with descriptive and inferential statistics.

Results: the NAS score changed in accordance with the various ICU admittance diagnoses and varied on a daily/shift basis. It follows that the nurse/patient is not a fixed variable. Furthermore, the nursing activities performed outside ICUs represent an adjunctive condition of understaffing. We also found a correlation between high NAS scores and elevated levels of agitation.

Conclusions: the number of nursing staff needed differs on the basis of the type of patients present and the shifts covered. The NAS score therefore allows the identification of actual staff needs and helps to balance the staff levels according to the shifts.

9.15 - 9.30

Introduction to the Nanoelectromechanical Systems (NEMS) method within a general intensive care therapy - considerations after 18 months of practice.

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Objectives: to measure nurse workloads through the application of the NEMS method, from May 2009 to December 2010, within the polyvalent ICU of the "Dott. Pederzoli S.p.A." Nursing Home. To verify the suitability of the NEMS method, in determining the needs for the nursing workforce, through the comparison of scores of other IC units.

Materials and Methods: the data for 899 patients was gathered through the drafting of a table for the compilation of the NEMS form. The SAPS II was furthermore compiled, correlating the NEMS results of 43 patients, in the months of January and February 2010.

Results: in 2009 the mean NEMS score registered was 20.3, and in 2010 it was 21.3; the average number of

beds occupied was 87% for 2009 and 88% for 2010. The estimate for the nursing staff needed was done by applying the NEMS data index on the number of beds occupied and resulted as 2.3 Nurses for every shift.

Conclusions: the measurement of the healthcare staff's work-load was a very useful tool for management purposes. Comparison of data obtained in our study with that reported by Lucchini in 2008 and that gathered at the Polyclinic Ca' Granda of Milan (during a training session), triggered some doubts regarding the coherence of the tool. The absence of a clear norm to guide the specification of organizational flowcharts was an incentive to pursue the efforts of recording and elaborating the data. The measurement of care loads, however, could not stand as the only tool to be used in determining the need for staff. Other support indicators have to be used with the analysis of Operating Unit activities, such as the monitoring of lesions due to pressure and correlated CVC infections, constant surveillance of the shifting of medical instruments besides the analysis of the ethical climate.

Bibliography

- Miranda D, de Rijk A, Schaufeli W. Simplified Therapeutic Intervention Scoring System: the TISS-28 items - results from a multicenter study. *Crit Care Med*, 1996; 24: 64-73.
- Miranda D, Moreno R, Iapichino G. Nine equivalents of nursing manpower score (NEMS). *Intensive Care Med*, 1997; 23: 760-5.
- Lucchini A et al. Use of NEMS and NAS measuring systems to determine the needs for nurse workforce within a polyvalent intensive care unit. *AIR*, 2008; 27 (01): 18-26.

9.45 - 10.00

Modified Early Warning Score (MEWS) and index of complex healthcare (ICA) in the ER; experience of a 1st level A&E unit in Tuscany

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Introduction: the need to measure the complexity of nursing care in the ER in correlation to the procedures in monitoring the patient has long been focused on by nurses as a sector to be improved.

Aim: to measure the complexity of care in the A&E Department in order to improve the Monitoring Of Patients.

Materials and Methods: ICA based on the Cantarelli method with the unification of services 10 and 11 of the MEWS score.

We laid out a paper chart measuring nursing care encompassing the aforesaid tools. It was applied to all the ER patients at the triage and classified with the green-yellow-red codes.

Those excluded were: white and blue codes, pediatric patients, those with limb trauma and pregnant women.

For every patient subjected to the test, the ICA was calculated, identifying the complexity level closest to the overall nurse's assessment of the patient. The MEWS scores of these same patients were assessed upon entry into the department, and on discharge, with the possibility of performing re-assessments. The observation period was from Feb. 16 to April 16, 2011.

Results and Conclusions: a total of 687 measurement charts were filled out, of which 381 were green codes, 248 yellow, 5 red, and 53 incomplete.

Data analysis: we are elaborating the data, the final report of which will respond to the following questions:

1. Does the complexity level assessed reflect the priority code?
2. Is there a correlation between the complexity level, priority code and MEWS value?
3. Do the monitoring procedures relate to the complexity of care and MEWS values?
4. Do the nurses consider this study useful?
5. What sectors should still be explored?
6. Do we consider the nursing skills adequate to the complexity levels of patients?
7. Is a suitable mix of skills present in every work shift?
8. The general score of complex care measured.
9. Mean value of the MEWS score.

10.00 - 10.15

Intra-departmental mobility: a necessity that optimizes the use of staff and an opportunity for the professional growth of nurses.

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Introduction: the implementation of intra-departmental staffing was the preferred organizational structure to be adopted by hospitals, in the assignment of nursing staff, as provided by law since 1968 and underlined by the succeeding norms, though not complied with in the past. In 1992 in Hospital Maggiore of Milan, the constitution of the Anesthesia and Resuscitation departments encompassing the General ICU and Neurology ICU pushed the coordinators to reconsider the placement of nursing staff in light of a new organizational structure. Following the institution of the Foundation, from 2005 onwards, the opening of the Postoperative ICU and the annexing of the Pediatric IC, saw the development and consolidation of a nursing staff management model, with cross-

departmental features connected to the Intensive Care areas.

Aim: to constitute a sole pool of operators with skills that focus on the management of critically ill patients. Materials and methods

Bibliography review. Elaboration and documentation of insertion paths and structure, consisting of four evaluation forms, specific to each Intensive Care unit.

Results: after a long and difficult study, the Intensive Care areas can now count on a sole team of 65 nurses with specific professional skills, differing from one another according to the experience acquired and the level of professional performance achieved.

Conclusion: the introduction of a managerial and organizational logic oriented toward cross-departmental mobility of staff, calls for a profound renewal of the vision coordinators have of the work of nursing staff. This organizational model ensures continual care and high skill levels, and will ease the nurses' professional pathways and the insertion of new staff.

References

- Auteri E. Management of fundamental human resources (3 ed.). Milan : Guerini and Associates; 2001 p 28-31, 36-39, 55-57
- Calamandrei C, Orlandi C. Nurse Management-manual for nurse management training (2 ed.). Milan : McGraw-Hill; 2002 p 313-319, 322,323

10.15 - 10.30 Discussion

Coffee Break



Economy, Organization, Resource 2

Moderator: Stefano Sebastiani

10.45 - 11.00

Nursing Management in the Emergency Medical System. A suitable Organizational Model.

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Background: organizational guidelines of the Local Healthcare Center (Asl 7) of Siena for the institution of the new emergency Obstetrics-Nursery Dept.

Aim: to explain the functions, organizational structure, competences and contribution of this department to ASL7 economy.

Material and Methods: the organizational model of the Obstetrics-Nursery emergency area is composed of a Nurse Manager appointed pursuant to Law 251/2000 and assigned with a budget -- and six Nurse Coordinators, two of which are also assigned a budget, and cover the positions of Area Organization and Hospital Managers. The additional four units and emergency dept. inside the hospital partly ensure the coordination of operational processes throughout the entire structure. Section Managers ensure the assigned budget distribution and coordination of care management in the region/hospitals, work distribution and uniform care-strategies, so that activities can be completed and objectives reached. There are 120 units of Nursing resources and support staff assigned to DEU spread throughout the entire Siena province.

Results and conclusion: the organization described above provides for the harmonization and optimization of all activities and the uniform development of competences through the continuous exchange of professional units between the different healthcare settings and operating geographic sectors. The management procedures for the supply and handling of shifts are effected through innovative management tools.

11.00 - 11.15

New frontiers of triage: experimentation of the "FAST-TRACK" paths. Analysis of organizational outcomes, costs and processes.

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Elisabetta Palma, Giancarlo Cicolini, University Degree in Nursing and Midwifery "G. D'Annunzio" Chieti - Pescara*

Background: about 53,300 patients are visited per year at the First Aid service of St. Paul's Hospital, Milan. The major activity (85%) occurs from 7 a.m. to 9 p.m., encompassing the activities and prolonging the Wait Times before the call. In order to shorten Wait Times we realized that fast nursing paths called "fast-tracks" should be established as implemented in Tuscany and Emilia Romagna.

Aim: to measure the impact on efficiency of the fast-track system in the treatment of patients with ophthalmologic, dermatological and ear, nose and throat health disorders.

Methods: comparison of the activity from 8 a.m. to 4 p.m. in the First Aid service of St. Paul hospital, Milan, in the periods September 2010/2011 (fast-tracks activated) and September 2009/2010.

Exclusion criteria: patients with major health issues (color code yellow and red) or with preferential access (obstetrics, pediatric, orthopedic and trauma). Data obtained from the SW "first-aid", and analysed with SW-free OPENEPI. We used the Student's t-test for independent samples, significance level set at 0.05.

Results: analysis per code of access did not register an increasing number of admissions according to color codes, except for patients with white codes (from 214 to 614), and green codes (from 5.606 to 6.508) in the period observed, while yellow and red codes did not vary significantly.

Analysis per length of Wait Times: the introduction of the fast-track system, demonstrated on the whole, a reduction of Wait Times. This decrease was statistically significant (200 minutes) for the white codes, despite the increased number of admissions ($p < 0.001$), and for the green codes (55 minutes) ($p < 0.001$). Wait Time was thus reduced by 19 minutes for the yellow codes and 4 minutes for the red ones ($p = 0.99$).

Cost Analysis of white codes (paying a ticket): with patients paying a 25 ticket, the mean cost estimated is 11.65 per patient visited in the First Aid service, with the hospital earning about 13.25 per patient. Shorter Wait Times for patients given white codes reduced the number of people leaving the hospital (2,663 vs. 4,043). We estimated net proceeds of 3,174 only during the month of June 2011.

Conclusions: the activation of the fast track system has significantly reduced Wait Times for the less severe patients. Further investigations are needed to assess the economic impact in the mid/long-terms.

References

- Anchisi R, Benci L, Benci A et al. NurseTriage. Milan: Mc Graw- Hill; 2000
- Raimondi M. Triage. In Raimondi M. Prehospital Trauma Care. Arianna Editrice; 2003: 141-50
- Di Pietro G, De Blasio E, Diani A, et al. Prehospital Triage at the poly-emergency and maxi-emergency areas. Prehospital Trauma Care Basic Framework. Prehospital Trauma Approach and Treatment following the Italian Resuscitation Council guidelines. Milan: Italian Resuscitation Council; 2003: 81-3
- Benci L. Professional practice in specific operating situations. In Benci L. Juridical Aspects of the Nursing profession. Elements of healthcare legislation. 4th ed. Milan Mc Graw-Hill; 2005: 96-103GFT-Group Triage Training. Nursing Triage. McGraw-Hill Italy, Milan 2005.

11.15 - 11.30

Lean organization: the experience of the Accident and Emergency Department (A&E) of Perugia

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Premise: the Accident and Emergency Department of Perugia, together with the Umbria School of Public Administration, recently hosted an innovative workshop on the theory and practice of "rapid improvement" strategy, developed on the new organizational model known as "lean organization" (Toyota method). The underlying aim of this method is to address a department's priority problems in a fast, decisive and time-saving manner.

Aims: the aim of this paper is to illustrate the experiences of the "rapid improvement week": assumptions, operating modalities and results.

Materials and methods: during the "rapid improvement week," a team of professionals (nurses and doctors), under the guidance of an expert in organizational engineering, conducted an analysis of the problems, identified the valuable and non-valuable activities, possible solutions, implementation of correcti-

ve interventions, and measurement of the outcomes. A follow-up was carried out after one month to evaluate the impact of the intervention.

Results: the acceptable value between working time and time frame was fixed at $\geq 30\%$. Neurological problems = 25%, abdominal pain = 42.5%; cardiac problems = 63.3%. For green code abdominal pain and cardiac problems, values were well over the average. Neurological green codes proved to be below average in that the time-dependent neurological illnesses, classified as yellow codes are excluded.

Conclusions: the Accident and Emergency Department of Perugia is capable of ensuring a service which is in line with the standards of rapidity of response, efficiency, safety and adequacy of the best national hospitals. This project aims to bring a further reduction of patient Wait Times before treatment and the amount of time spent under treatment in the Accident and Emergency department, with the aid of managerial methods which aim to save time (time span, Wait Times).

References

- Negro G, Ozzello S. Lean Solutions for the P.A. Maggioli Editors, S.Arcangelo di Romagna, 2010.
- Perrella G. The Toyota System for new competitiveness. FrancoAngeli Editions, Milan, 2009

11.30 - 11.45

118 Emergency System and the Mattoni Project: role of nurses at the 118 call stations.

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The 118 operating stations are qualified facilities with specialized staff and advanced technologies and are complex structures from the viewpoint of operator expertise in handling and coordinating various care facilities and personnel also of external organizations. Undoubtedly, the role of the operators at the call stations are key figures in: facilitating the flow of communications and the creation of integrated "visions" of response to emergencies, thus connecting the specific objectives of the single functions to the general view of service, directing all efforts towards a common goal. Project Mattoni focused on the emergency services issued by the 118 Operating Stations. The referral context was the Ministerial Decree of December 17, 2008 published in the Official Gazette no. 6 of January 9, 2009 which falls within the field of regional organization norms with the provisions and guidelines on the definition of tariffs for emergency transport using ambulances and emergency helicopters. The report describes the role and activities of nurses in handling the implementation of the Ades System of the 118 Operating Stations of Perugia

according to the flowchart provided by the M. Decree, with the consideration of the possible economic and financial impact on regional governance. One of the major critical points in the Emergency Service lies in the documentation of clinical diagnostic pathways and the therapeutic reports of healthcare services. The particular aspects of the 118 service obliges, other than the use of less traditional tools like the patient's chart, also all the other fundamental evaluation tools that facilitate the gathering of documentation and ensure standardized data, such as the registration of the flow of phone calls and radio communications with the emergency vehicles, and use of standard and electronic charts. Standard UNI EN ISO 9001 requires the identification and traceability of products, services and documents. Each chart is thus identified by a progressive number, the time of the call for assistance, ID data and triage code of the patient, objectivity upon arrival, and therapeutic provisions effected: the correct compilation of the charts (completely handled by the nurse at the 118 Operating Station) and data regarding the dispatching to Control Management in a percentage \geq to 85% of the events handled have been considered some of the basic points for the activation of the Quality Management System with reference to ISO 9001-2008, aimed at obtaining the certification and institutional accreditation for the 118 Operating Station of Perugia. The hospital enterprises necessarily focus on the principles regulating the flow of complex organizational systems and the importance given to mechanisms for the production of results, which can ensure the issuance of the best services in terms of quantity and quality. Nurses should assume proactive, decision-making roles in the planning, coordination and management of professional activities, to make the Hospital Enterprise Management see the strategic importance of investing on development, and value nursing staff in this perspective.

Bibliography:

- DECREE December 17, 2008 "Institution of the information system to monitor the services issued in healthcare offered in the emergency departments" G.U. General Series no. 9 of January 13, 2009
- Resolution 1926 Umbria Regional Council 20/12/2010

11.45 - 12.00

Nurse coordinators and use of indicators in budgeting processes: comparison between the Local Healthcare Centers in Rome.

Claudio Fedeli, Orthopedics, Hospital Trauma Center Asl Rm C

Gaetano Romigi, Training and Refresher Courses, Asl Rm A

Andrea Maccari, Information System, Asl Rm B

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Introduction: the last few years saw the development of survey systems to measure healthcare services, especially regarding the use of resources and the quality of services offered. Due to this, there is a growing need to develop multi-dimensional rating systems that focus on the integration of the diverse data. This new setting has focused the perspective on changes that are of basic importance in a Healthcare System that is aware of the importance of the role nurses play, especially at Management and Coordination levels.

Coordinators should be able to measure and evaluate their own performance, as well as that of their Operating Units and cooperators. The systematic use of indicators in healthcare is one of the tools that help in reaching this objective.

The nursing field avails of different indicator models used in measuring nursing procedures and practices, to assess the efficacy and efficiency in nursing care.

Other clinical healthcare indicators should be likewise developed, with regard to the managerial-organizational aspects that are also useful in budgeting procedures and the creation of budget charts that today have become the symbols and essential tools of Healthcare systems that are undergoing great changes. Knowing how to use such tools implies acquisition of know-how aimed at improving internal management in the organization of all types of resources, whether economic or human resource, structural or temporal. The work undertaken concluded with an information survey conducted by the authors. The study was conducted in some local healthcare centers in Rome with the aim of verifying whether the nurse coordinators assigned to these centers participate in the budgeting processes through the use of indicators of management assessment activities, and in the economic-financial control of their own Cost Centers. The data gathered was codified and entered into an excel table with three columns and interpreted through graphs. The study furnished really positive data and showed that the Nurse Coordinator in most healthcare centers is involved in both budgeting processes through indicators and also participates in budget negotiations through budget charts. In Centers that still do not avail of budgeting at nursing levels, it was demonstrated that corporate Strategic Management and Nursing Management were, however particularly sensitive to the training of staff with coordinating functions and targeted the future participation of Nurse Coordinators in budget discussions. They also foresee the use of management control as a tool to improve the efficacy, efficiency and quality of nursing care services. This is an experimental model that will soon

establish these procedures on a more extensive scale aiming at a more permanent implementation.

Materials and Methods: bibliographical and multimedia research, magazines, cognitive surveys in the Local Healthcare Centers in Rome.

Results: greater awareness of the use of indicators in budgeting processes and budget charts, participation of Nurse Coordinators and nurses in the Budget Process.

Conclusions: to conclude, the study underlined the importance assumed by the use of indicators in the budgeting processes and budget charts. Each nurse coordinator should be familiar with these tools and be able to use them. The use of budgeting indicators is a way of verifying whether one's activities are correct, and of comparing data in order to set these in relation with specific indicators based on generic indicators of efficacy, efficiency, productivity and quality.

The correct use of economic and financial resources also signifies respect for public goods but especially for the patient who uses these services. The user-client, central point of the healthcare system will receive better care only if the necessary resources are correctly used and if these produce the indispensable services in the correct way. Since healthcare resources are limited, the Nurse Coordinator will play, in the future, a more significant role in this field, also due to his/her own expertise.

Keywords: Nurse Coordinator, budgeting process, use of indicators, budget charts.

12.00 - 12.15

Rationalizing to avoid rationing. Techniques for the evaluation of healthcare economics.

Marco Zucconi, Safety and Risk Management, Hospital Enterprise of Perugia

Nicola Ramacciati, Emergency Dept. Perugia Hospital

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Introduction: one of the main problems of the healthcare systems of industrialized countries regards the allocation of resources needed for the prevention and treatment of the population's pathologies. Within the next decade, this phenomenon will gain importance for healthcare decision-makers given the continuous aging of the population and lengthening of life-expectancy of patients with the rapid development of technology.

Aims: to assess healthcare economics through analysis of alternative intervention plans, based on efficiency standards to support decision-making procedures. Given the limited resources, the consequence in certain healthcare activities implies the impossibility of using the same resources in other productive and beneficial activities. The adoption of specific econo-

mic evaluation tools will enhance a sound usage of resources and avoid wastefulness and the consequential indiscriminate budget cuts.

Materials and methods: the report describes the objectives and procedures for the application of the main economic evaluation techniques in the Healthcare sector, with examples taken from the nurses' work environment:

- *Cost analysis,*
- *Cost-effectiveness analysis,*
- *Cost-benefit analysis,*
- *Cost-utility analysis.*

Results: each technique opens out to valid options in matters of healthcare economic investments, though with different difficulty levels in determining the best investment. The decision-maker is assigned the task of choosing the instrument to be adopted according to the specific sectors, data and time available.

Conclusions: the use of healthcare economic strategies implies the selection of health priorities and the implementation of strategies that can make these decisions operational. The criteria defining priorities depend on the culture, historical setting, preferences of the population and unfortunately, also political consent. The standards are not always made known, nor are they always easy to comprehend or accept, but nurses cannot exempt themselves from knowing at least the basic theories, especially if they cover managerial roles.

Bibliography

- Drummond MF et al. *Methods for the economic evaluation of healthcare programs.* 3rd Ed., Il Pensiero Scientifico Publisher, Rome, 2010.

12.15 - 12.30

Economic impact and quality of medical devices in ICU: the role of nurses.

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Introduction: among the consumption materials of an Operating Unit, the Medical Devices are those with greater economic impact on the department. Cost containment is, however, often not synonymous with quality, an essential element for the safety of patients and healthcare professionals. Nurses have an important role in identifying and choosing these devices.

Contents: the legislation regulating medical devices (Legislative Decree of February 24, 1997, n. 46 - Implementation of Directive 93/42/EEC on Medical Devices) lays down specific conditions for manufacturers to obtain the EC mark. However, it is not a guarantee of quality in equal measure.

The hospital's chronic recourse to acquisition based on lower price offers, involves a risk of being bound to poor quality supplies, at times for long periods.

To minimize these risks, hospitals form purchasing groups (metropolitan tenders, great areas, regional bids, electronic markets), to optimize the purchasing processes, create greater competition among suppliers and obtain a price reduction due to the aggregation of demand.

In 2009, the Medical Devices Commission Company (CADM) was established within the Hospital University of Bologna, S. Orsola - Malpighi with the aim of evaluating the introduction of new technologies with high economic, clinical and organizational impacts.

Aside from using its structural components (Clinical Governance, Pharmacy, Biomedical Technology, Management Control), the CADM also collaborates with other professionals, including nurses with extensive experience in specialized units and/or the Health Department.

Conclusions: the acquisition of medical devices is a complex and critical issue due to the effects that a wrong choice can lead to. Nurses in this process at multiple levels, cover an important role which should be based on criteria established by law and knowledge of the main acquisition procedures, in order to exercise proper control over the medical devices also during their usage. Application of these principles can enhance their safety and the health of patients, and likewise contribute to cost containment and optimization of economic resources.

Keywords: Medical Devices, Economic Rationality, Safety.

12.30 - 12.45

Economic consequences of inserting a management protocol for enteral nutrition (EN).

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Introduction: literature highlights the importance of correct nutrition of patients in the ICU: the ESPEN Guidelines highly recommend the use of Enteral Nutrition (EN) with respect to Total Parenteral Nutrition (TPN) whenever Artificial Nutrition (AN) is indicated.

Literature also underlines the responsibility of nurses in managing EN and in laying forth and sharing of protocols.

The use of protocols for the administration of EN allows the decrease of morbidity and mortality and shortens hospital stays, with the consequential reduction of costs.

Aims: to highlight the minimization of costs related to AN following the insertion of a protocol for the management of EN in Cardiac Surgery ICUs.

Materials and Methods

Comparison of the number of requests for TPN/EN at the TICCH before and after an 18- month period in which a protocol was inserted (divulged in the month of November 2009).

Analysis of costs for TPN/EN and the respective infusions

Results: there were 1,755 requests for TPN registered in the 18 months before the insertion of the protocol (total expenditure of 37,232.32); 1,030 TPN requests in the 18 months after the insertion of the protocol (total expenditure of 20,466.5): overall cost reduction for TPN was at 16,765.82.

There were 1,764 requests for EN in the 18 months before the insertion of the protocol. (total expenditure of 5,144.45); 3,000 EN requests in the 18 months after the insertion of the protocol (total expenditure of 8,43.60): the overall costs for EN increased by 3,295.15.

Conclusions: the insertion of a protocol for the management of EN in the TICCH of Cuneo, caused the application of the provisions of the International Guidelines, accompanied by a reduction of costs for AN of about 13,470.67 within the 18-month period.

Bibliography

- Barr, Hecht, Flavin et al. Outcomes in Critically Ill Patients Before and After the Implementation of an Evidence-Based Nutritional Management Protocol. *Chest* 2004; 125: 1446-1457
- Kreymann, Berger, Deutz et al. ESPEN Guidelines on Enteral Nutrition: Intensive care. *Clinical Nutrition* 2006; 25: 210-223
- Ros, McNeill, Bennet. Review: nurses can improve patients' nutrition in intensive care. *Journal of Clinical Nursing* 2009; 18: 2406-2415

17 November 2011 - Morning - Conference Room 2



Safety and Quality

Moderator:

Gaetano Romigi, Giovanni Becattini

8.30 - 8.45

Analysis of the possible relationships between overcrowding and accidents of patients in the ER of a second level A&E Department. The economic impact and possible solutions.

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Introduction: the study presents an analysis of the possible causes of accidents involving patients stationing in the ER. Falling from stretchers is one of the main accidents that occur.

A first hypothesis analyzed through a careful reading of available statistics evidenced that accidents increase when overcrowding occurs in the ER, and are beyond the control of the nurses assigned to the management of the waiting rooms and infirmary area. The second hypothesis is that patients stationing for many hours while awaiting to be visited or due to the lack of beds, are more likely to suffer accidents compared to those who are triaged immediately, and are most probably sent home or hospitalized without waiting too long.

The third hypothesis is that the accidents increase when there is a minimum number of nurses in the infirmary and waiting areas.

Aims: the objective is to carefully analyze the problem and lay down some corrective actions to lower the percentage of accidents and estimate the costs of care for the victims of accidents charged to the Regional Healthcare Service.

Materials and methods: analysis of the paper records of accident victims and consultation of IT software for the management of ER patients correlated to an analysis of the work shifts, workloads and the staff on duty are useful in gathering statistical data on the characteristics related to the development of such events. The retrospective, observational study referred to the accidents that involved patients over a two-year period.

Results: the study and analysis of data will be successfully implemented. A simultaneous review of the

international bibliography recently furnished some indications on possible solutions that may solve or prevent the falling of patients from stretchers within the hospital setting.

Other studies identified the assessment scale on the risk of falls, to be filled in by nurses when patients are admitted. Wherever this was not used, the problem was underestimated, resulting in the increase of falls. Scientific evidences regarding this problem abound and can help in finding the suitable solutions to prevent this alarming phenomenon.

Conclusions: overcrowding of patients in the ER is one of the main causes of accidents. The hypothesis analyzed in the study pointed to the limited number of staff on duty combined with overcrowding as an important factor contributing to the increase of accidents occurring to patients. Other elements such as lengthening of Wait Times in the ER and the lack of suitable tools to assess the risk, raise the incidence of accidents.

Bibliography

- Tzeng HM, Yin CY. Heights of occupied beds: a possible risk factor for inpatient falls. *Journal of Clinical Nursing*, 2008
- Tzeng HM, Yin CY. Nurses' solutions to prevent inpatient falls in hospital patient rooms, *nursing economics*, 26, 3, 2008
- Shorr et al. Improving the capture of fall events in hospitals: combining a service for evaluating inpatient falls with an incident report system, *Journal of the American Geriatrics Society*, 56:710-704, 2008

8.45 - 9.00

Safety Management of staff working in emergency vehicles: prevention and monitoring as management tools for quality and cost-containment .

Matteo Bartolomei, Domenico Coviello, EMS 118, AUSL Bologna

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Our study focused on the safety conditions of healthcare workers operating in emergency vehicles, their training in this issue, their habits concerning the use of seat belts and the accidents they have

been involved in. This analysis also aimed at the prevention of accidents and the preservation of the health of workers, so as to reduce the economic impact on society in case of accidents leading to permanent injuries or death. A research on existing literature was carried out on the main scientific search engines, and a questionnaire capable of drawing an accurate picture of our reality was developed and distributed to all 118 headquarters in the province of Bologna. The sample, composed of 222 questionnaires, were all voluntarily filled in (63% of the population). The data resulting from this survey showed that the problem of security of healthcare workers is real, widespread and should be immediately addressed, considering that only a little less than half of the sample (44%) had at least one accident. Worthy of note, is the fact that more than one operator out of ten (11%) who were involved in an accident suffered permanent injuries, as assessed by medical records. In addition, it was observed that seat belts are frequently used in the drivers' compartment, particularly while driving to the assistance site (86% of cases), and also while driving to the hospital (66%). The rate of seat belts being used in the sanitary compartment while transferring the patient to the hospital is instead alarming: only 25% always or almost always fasten their seat belts. This implies that three out of four operators are constantly exposed to high risks of death or serious accidents. Such cases were also found in a study led by Becker in 2003 (conducted on a sample of over 25,000 cases). The results of this survey suggest that it is of the utmost importance to increase training and education on safety issues on board local emergency vehicles. At healthcare enterprise levels, a risk management project is being currently developed for the reporting and monitoring of events concerning the safety of operators. This is an important step towards the enhancement of the quality of professional services, and hopefully, the suggestions that emerged from the survey will be automatically inserted in the project. This data will be used to study the phenomenon in a detailed and evidence-based way, thus enabling us to counter - not just the suppositions - but the real causes of accidents, with the most appropriate tools. A reduction of potential risks, and consequently of possible accidents, will also influence the human and economic factors: the actual aim of prevention is to make anticipated investments in view of future cost-effectiveness.

9.00 - 9.15

Occupational injuries among Emergency Medical Services personnel, SEUS 118 Province of Lecce. Observation period from 2005 to 2010 and evaluation of organizational and economic effects.

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Background: the risk of injury to Emergency Medical Services personnel (SEUS) is still being explored.

Objectives: to describe the epidemiology of occupational injuries among SEUS personnel, calculate injury rates, characterize the types of occupational exposure to risks and injuries reported by SEUS workers and evaluate organizational and economic effects.

Methods: this is a retrospective study of all injury records of SEUS workers in the Province of Lecce (Italy) from January 1, 2005 to December 31, 2010. There is also an evaluation of economic and organizational effects that injuries had on 118 SEUS personnel of Lecce in 2010.

Results: during the period observed, 92 files were reported. Nurses were the most involved workers (46%, $p = 0.019$). The main cause of occupational injury was mechanical (91%, $p = 0.0001$), and biological (6%), and three cases were related to heated discussions. The first cause of injury was car accidents (25%). "Sprains" and "strains" were the most frequent types of injuries (37%) among Emergency medical personnel. The 92 cases resulted in 1,851 workdays lost. Nursing personnel is the category that weighs heavily on the global cost. The phenomenon of occupational injuries has made the already critical situation worse.

Conclusions: the phenomenon of occupational injuries among SEUS workers is related to the peculiar environment and to specific causes such as car accidents when operating in external locations, that turn out to be hostile and the psychological impact due to intervention conditions. Investigation on this subject may help the management of health organizations to identify more detailed prevention strategies. Economic effects of the phenomenon are very important.

Organizational difficulties cannot be exclusively charged to the phenomenon of occupational injuries, but the phenomenon has worsened the situation which has been critical for several years. The gravity of this phenomenon is not helping the organizational structure which is on the brink of collapse and certainly will need great determination to return to a normal situation.

References

- Sterud T, Ekeberg Ø, Hem E. Health status in the ambulance services: a systematic review. *BMC Health Serv Res.* 2006; 6:82.
- Heick R, Young T, Peek-Asa C. Occupational injuries among emergency medical service providers in the United States. *Journal of Occupational and Environmental medicine/American College of Occup Environ Med.* 2009; 51(8): 963-968.

- Maguire BJ, Hunting KL, Smith GS, Levick NR. Occupational fatalities in emergency medical services: a riddled crisis, *An Emergency Med* 2002; 40(6): 625-632

9.15 - 9.30

Exploratory survey on the perception of violence in the Emergency Departments.

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In Italy, the phenomenon of violence suffered by first responders has been poorly investigated. Instead in other countries, this type of issue has been more deeply studied so that many organizations could apply changes to reduce the high rate of shifts, number of paid sick-leave days and possible disputes with clients, and to implement a clear improvement of the organizational climate.

Therefore, the aim of the study was to investigate the ED workers' perception of occupational violence suffered by nurses, in order to initiate a preliminary study of the situation and its extent.

All the nurses working in the different Emergency Departments in Bologna, received an ad hoc questionnaire in which violence was divided into the following: Physical violence, psychological violence and verbal violence.

From the data analysis, we were able to carry out statistical surveys as compared with current literature that facilitated discussions among ED nurses, ED managers and administrators.

References

- Gacki-Smith J, Juarez AM, Boyett L., Homeyer C, Robinson L., MacLean SL. Violence against nurses working in US emergency departments. *J Healthc Prot Manage* 2010;26(1): 81-99.
- Roche M, Diers D, Duffield C, Catling-Paull C. Violence toward nurses, the work environment, and patient outcomes. *J Nurs Scholarsh.* 2010 Mar;42(1):13-22. University of Technology, Sydney, NSW, 2007, Australia
- Magnavita N, Heponiemi T. Workplace violence against nursing students and nurses: an Italian experience. *J Nurs Scholarsh.* 2011 June;43(2):203-10. doi: 10.1111/j.1547-5069.2011.01392.x. Epub 2011 Apr 1.

9.30 - 9.45

The "costs" of violence and abuse suffered by ER operators.

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Introduction: violence in the work place (WPV- Workplace violence) is now universally recognized as one of the main problems in public healthcare settings worldwide, and ED nurses, especially those engaged in Triage activities, are the most vulnerable. Numerous international studies have investigated in depth the problem of violence to operators, despite the issuance of specific "instructions" by the Ministry of Health regarding this issue.

Aim: the aim of this work is to analyze the extent of the phenomenon of aggressions in terms of frequency and gravity of the results, and therefore, highlight not only the economic impact in terms of costs but also the impact of violent episodes on the human and professional aspects.

Materials and methods: through research in the main referral databases (PubMed and CINAHL) as well as on the Internet (Google Scholar search engines) we gathered and analyzed data from the most recent international and Italian articles in literature reviews dealing with this issue.

Results: recent studies conducted in 15 Emergency stations of 14 Italian regions representing the entire nation, evidenced that 90% of nurses working in the ER have been verbally attacked or witnessed the aggressions suffered by colleagues (95% of the sample); 35% suffered from physical violence and more than half (52%) witnessed these aggressions. At least a third of nurses (31%) had to undergo medical care, with prognosis of up to 5 days (13%), from 5 to 15 days (11%), or more than 15 days (6%).

Conclusions: violence towards nurses in the A&E department not only has a great economic impact, but it also generates above all "indirect costs" related to psychological damage caused by aggressions. Determination, self-esteem, and safety are highly undermined by aggression episodes. The burnout of A&E operators is however, also nurtured by this phenomenon.

Bibliography

- Child RJH, Mentis JC. Violence Against Women: The Phenomenon of Workplace Violence Against Nurses. *Issues on Mental Health of Nurses*, 2010;31, 89-95.
- Becattini G, Bambi S, Palazzi F, Lumini E. The phenomenon of aggression to A&E nurses: the Italian perspective. In ANIARTI, Documents of XXVI National Congress 2007.

9.45 - 10.00

Risk management and its economic impact on the workplace: incident reporting in the A&E Department.

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Introduction: the National Institute of Occupational Safety and Health (NIOSH) defines violence in the workplace as *"any physical aggression, menacing behavior or verbal abuse occurring in the work place."* The impression that violence is an inevitable aspect of emergency departments and that skilled and trained nurses assisting critically ill patients are used to this type of event, may give the impression that in the absence of physical lesions and injury these events do not have an impact on care operators. In reality, with time this may lead to the emergence of Post-Trauma Stress Disorders. Even if occupational violence is widespread, most nurses do not report the violent episodes, in the belief that reporting such events is of no use. This idea is backed also by the fact that reporting systems for violent episodes are scarce.

Problem: the factors that concur with the start of violent acts may be related to the conditions of the patient or the hospital structure. Violent acts against healthcare operators are sentinel events, and their importance led the Ministry of Health to issue, in 2007, a series of "Instructions on how to prevent violent acts towards healthcare operators. The Joint Commission pointed out (Jan.-Dec.2006) a total of 141 sentinel events related to aggressions, violence and murders. In 2005-2009 the Ministry of Labor, Healthcare and Social Policies established a monitoring system for the management of clinical risk, inserting "acts of violence towards operators" among the sentinel events (2.6% of the events signaled). In 2007 INAIL reported that out of 429 aggressions, 55% was towards nursing staff, 7% towards doctors.

Conclusions: the Incident Reporting of Workplace Violence model evidenced the phenomena regarding nurses working in the A&E Dept. in our country, and its impact on the economy and quality of the services rendered. The aim was to raise awareness in operators, of the importance of reporting such events, the implementation of training programs on the "methods for fast recognition and management" and establishing psychological support and debriefing programs for victims of occupational violence.

Bibliography

- National Institute for Occupational Safety and Health (NIOSH): Violence and Occupational Hazards in Hospitals. April 2002. www.cdc.gov/niosh/pdfs/2002-101.pdf
- Gates DM., Gillespie GL., Succop P. Violence Against Nurses and its Impact on Stress and Productivity. *Nursing Economics*. March-April 2011; 29(2): 59-66.
- Rippon TJ. Aggression and violence in healthcare professions. *Journal of Advanced Nursing*. 2000; 31(2): 452-460.
- Ministry of Health. Quality Assurance Department. Instructions on how to prevent violent acts against healthcare operators. Instructions n° 8, 2007. www.salute.gov.it/imgs/C_17_pubblicazioni_721_allegato.pdf
- The Joint Commission: Sentinel Event Statistics: December 31, 2006 - Type of Sentinel Event. <http://www.jointcommission.org/SentinelEvents/Statistics/>
- Ministry of Labor, Health and Social Policies i: Protocol for the Monitoring of sentinel events - 2nd Report (September 2005-August 2009). October 2009.
- Bucciarelli A. Dati Inail: Safety Checklists in hospitals. January 2007 n°1

10.00 - 10.15

Lateral hostility between critical care nurses: a literature review.

Stefano Bambi, Enrico Lumini, Azienda Ospedaliero Universitaria Careggi

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Introduction: in Italy, mobbing in the workplace became a public issue and called the attention of lawmakers, much later than it did in Northern Europe. The consequences of this issue on the production capacity and economic management of the healthcare systems are well known. Among the various kinds of hostilities, we can distinguish the horizontal or peer-level type, in which aggressor and victim are on the same hierarchic level. In scientific literature this particular phenomenon assumes several definitions which are only slightly different, but basically similar: "lateral hostility," "lateral violence," and "horizontal violence."

Aim: to conduct a literature review on the issue of lateral hostility.

Materials and methods: we researched on scientific papers through Medline and Cinhal databases, narrowing the search to papers in Italian or English, and came across the following keywords: "nursing," "violence," "bullying," "hostility," "lateral," and "horizontal."

Results: 571 citations were gathered, about 94 of which were original research papers. Horizontal hostility is extensively diffused worldwide, and across all areas of the nursing practice. Among the models that can explain the origin of lateral hostility, there is the theory of oppressed group behavior. The oppressed group shows a low level of self-esteem, and self-hatred, bringing division and discord in the group. The consequences for the victim of horizontal mobbing are professional (leaving the nursing profession), psychological (depression, anxiety, apathy), and physical (sleep disturbances, cardiovascular diseases). The prevalence ranges from 17% to 76% of nurses that joined the various studies. In the USA, out of the 4,043 critical care nurses that responded to a survey performed in 2006, 29.1% reported to have

been victims of bullying, violence, hostility or harassment in the last 12 months, perpetrated by their peers.

Conclusion: despite the wide diffusion across many countries in the world, we actually did not find any data from Italy. On this basis we have planned to make a national survey.

References

- Stanley K. Why so many names for BAD BEHAVIOR? South Carolina Nurse, Jan-Mar 2010
- Vessey JA, Demarco R, Difazio R. Bullying, harassment, and horizontal violence in the nursing workforce. *Annu Rev Nurs Res* 2010;28:133-157
- Ulrich BT, Lavandero R, Hart KA, Woods D, Leggett J, Taylor D. Critical Care Nurses' Work Environments: A Baseline Status Report. *Critical Care Nurse*. 2006;26: 46-57

Psycho-Relations and Communication

Moderator: Antonella D'errico

10.45-11.00

Philosophy of Caring: how to regain the deep sense of humanity in the second millennium.

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The challenges faced by our healthcare system obliges professionals in the field to ponder, elaborate and share decisions and healthcare procedures.

Those involved in healthcare cannot disregard the importance of their relationship with the person being assisted. A careful examination of healthcare issues cannot but re-convert professionals towards the inevitable need to regain a vision that encompasses the totality of the human being.

In the philosophy and theory of Human Caring, taking care of someone stands for the ideal in nurses' ethics and morals and methods of care, which encompass interpersonal and humanistic qualities and implies the development of knowledge, abilities and technical skills, and includes concepts of holism, empathy, communication, clinical cognition, technical know-how and interpersonal abilities, from birth to illness and health, and up to suffering and death.

It is a matter of seeing the deep sense of the human experience as it is, and not only for its manifestations of health or illness as traditionally defined.

The main aim of the project is to backup the evolution of the philosophy and its concrete application to human caring as a theory and science oriented towards the reestablishment of the profound nature of caring-healing and ethics involved when one takes charge of the person through the use of research, training, personal and professional experimentation,

individual study and elaboration of new organizational models.

The fields of action are extensive; research works have already achieved and offered important cues for the implementation in both out-of-hospital settings and services where technology seems to have hindered humane relationships, and which are open to charitable procedures.

The trend is to move towards the constant effort to stand by the others, and meet the challenge of demonstrating how all this undoubtedly will also impact on the economic aspects of healthcare which will certainly benefit from it.

References

- Watson J. The philosophy and science of caring. Revised Edition. University Press of Colorado, Boulder Colorado 2008
- Masera G, Poli N. Closeness and detachment through caring. Ed. Franco Angeli, Milano 2007

11.00 - 11.15

Communications in Emergency Medical Services: deontological analysis of the importance of communications in the nursing profession.

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Premise: communication plays a fundamental role in the activities of the nursing profession, for both the specific legislative and deontological norms. For this reason, a detailed ethical-deontological analysis of communication is offered, which illustrates the specific image of the nurse created in emergency departments of the Hospitals in Florence. One of the most important duties of the assistant director is to commu-

nicate with colleagues, doctors, relatives, and obviously, with patients. In health emergencies-urgencies, communication by a nurse becomes much more complicated when a medical urgency, or sad news has to be relayed to relatives.

Materials and Methods: to evaluate how the methods used for communications in emergency settings have modified the quality of assistance, I reviewed literature and analysed in detail the new image of the nurse presented in the Accident and Emergency Departments (AED) of the Hospital enterprises of Florence: the G.P.A.

Results: this literature review underlined the importance of communication and showed how the presence of nurses with good communication skills, in addressing relatives, health personnel, and customers, can improve not only the services offered by the Hospital enterprises, but also customer-satisfaction.

Conclusions: communication is an extremely important part of the nursing profession, as evidenced by our professional profile. In conclusion, it is important to note that the institution of the Care Processing Manager is of great importance in improving the quality of care to patients and their families, and customer-satisfaction in general.

References

- Silvestro A, Barbieri G, Masucci A, Rodriguez D, Spagnolo AG. Comments on the Nurse's Ethical Code 2009, Mc Graw Hill, Milano, 2009
- Jensen A, Lidell E. The influence of conscience in nursing, *Nursing Ethics*, 2009; 16(1): 31-42
- MacDonald C. Nurse autonomy as relational Nursing Ethics, 2002, 9(2): 194-201

11.15 - 11.30

Management of quality admission and assistance routines at the A&E Department: effects of individual experience of illness on care relationships.

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Introduction: admission to the A&E Department is characterized by a complex set of relations and demands for services. For the patient it may be a traumatic experience, whereas the operators involved in heavy work loads, and standard procedures prevalently regarding clinical and therapeutic aspects, may not always focus on the experience, emotions and perception of the others and be led to disregard the dignity of the person assisted. There is thus the need to experiment on quality tools, such as narration, that can restore value to the act of taking charge of others.

Aim: to evaluate whether personal communication

and analysis of one's life experience of illness and cure as recounted by fragile patients who enter the A&E, can improve the nurses' reception of the patient and assistance provided. This phenomenological study was conducted with two instruments: a semi-structured interview and observation sheets. The sample was formed by 13 people in fragile age brackets, eight youths and five elderly, with multi-admissions to an A&E department in Rome. The analysis of the interviews was performed on four levels: reactions, significant expressions, common points, and lexicometric study.

Results: on arriving at the A&E the patients confirmed that they had low expectations with regard to the assistance they would receive. After the procedures at the reception, before being attended to, or discharged, due to long Wait Times, the persons experienced boredom, fatigue and tiredness. An assistance intervention was implemented, through autobiographical narration of one's emotions that helped the person to regain his/her capacity to express his/her thoughts, and recover "self-perception."

Conclusions: the study delineated problems, such as misinformation, the sensation of the lack of interest, long time-frames and waiting conditions, which cause anxiety and anguish. These sentiments can be countered, despite the criticality of the A&E, through narration: "narrating about yourself" turns into an "entrusting of oneself" and allows for a more effective care-relationship and improves the perception of quality of nursing care.

References

- Bobbo N. The person and his experience of illness: the educational approach. Cleup, Padova, 2009.
- Charon R. Narrative Medicine: Honoring the Stories of illness, New York: Oxford University Press, 2006.
- Zannini L. Medical humanities and Narrative Medicine, Milano, Raffaello Cortina, 2008.

11.30 - 11.45

The importance of communication with the families of potential donors of organs and tissues.

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Background: interaction with the families of potential donors is one of the crucial parts of the organ donation management process. Inadequate "disclosure of information" between the potential donor's family members and caregivers often results in opposition to the donation. It is also necessary to take into account the mindsets of those we are communicating with, and the information they may need, the expertise of the informing party and how the information is relayed.

Purpose: to standardize community guidelines, and provide the personnel involved with a common guideline to help them relate adequately with the families of potential donors of organs and tissues. For this purpose, in the ASL1 of Imperia, a working group composed of nurses and doctors of the department was created and with the help of the psychologist of the ASL, gathered together to identify and define a common project.

Methods: in order to improve the quality of family relationships and their impression of the quality level of services rendered, it is important to:

1. *Improve the quality of information provided at the time of admission;*
2. *Ensure continuity and consistency of information;*
3. *Make sure that the family takes note of and understands the information material available, and provide adequate support,*
4. *Promote and encourage family- patient contact;*
5. *Minimize the possibility of misunderstandings / misinformation;*
6. *Check the quality level perceived through regular audits and continuous monitoring;*
7. *Correct deficiencies. Inadequate communication between the families of potential donors and medical staff often leads the family to oppose the donation.*

For these reasons, we created a targeted corporate-training event, involving staff in the specific area for the donation of corneas; the project involved the departments of intensive care, cardiology and pulmonology in the Local Healthcare Center of Imperia ASL1.

Results: the expected results were the enhanced public awareness of the importance of organ and tissue donation, and the implementation of a new communication mode which was tested and validated. The staff involved in the team showed interest, and got involved in various brain storming sessions and discussions on how to improve communications in general, at the Local Healthcare Center ASI1 in Imperia.

Conclusions: from admission to intensive care following dramatic and unexpected events, family members are faced with anxiety and pain, caused by the situation and the physical separation from their loved one. Proper, timely and appropriate information, along with courtesy and helpfulness are essential, not only to improving the perception of quality thus increasing confidence, but also in reducing anxiety levels. It is vital to collaborate with staff of other corporate structures. What emerged was the importance of the common line of communication that the ASL1 of Imperia implemented, also with the support of a psychologist. *"During the illness, the patient and his family cannot be considered as separate units."*

11.45 - 12.00

Efficacy of patients' diaries, as tools for the recovery of the identity and personal integrity, in nursing patients with stress disorders correlated to ICU admission.

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Introduction: admission of conscious patients to intensive care units often causes a post-trauma stress syndrome also with serious consequences in the long-term. This pushed the nurses to use unusual tools, such as the patient's diary, to back up the therapeutic pathway and rehabilitation.

Aims: to assess whether narration can be an effective nursing tool; to verify if the autobiographic log can be a way of recovering the patient's identity and integrity.

Materials and methods: a qualitative phenomenological research was conducted in the Cardiac ICU of a hospital in Rome. The sample was composed of 10 patients, between 50 and 64 years of age, among which were 8 men and 2 women, hospitalized for over 72 hours.

Research tools: Interviews, patients' diaries and questionnaires.

Results: narrating one's own experience of illness, besides being difficult, however, produced unexpected results: the person experienced a transition from sentiments of dissatisfaction, fatigue and anxiety to a moment of temporary oblivion in the suffering produced by the illness. The writing of the diary was an opportunity to reflect about themselves, and to discover new resources and potential, and generally, greater serenity and optimism.

Conclusions: the patients gave the diaries a different significance, but each considered them of great help in understanding the gravity of the illness, accepting the events that came about and facing reality.

Writing a diary symbolized an interior place of well-being which helped them pass from their past problems to acquiring experience: and the constitution of experience encompassed the reconstruction of one's personal identity. Through the narration process the person has the means of expressing personal emotions and tensions, and start off a process of renewal which contributes to improving one's psychological state. The study demonstrated that narration is in itself a therapeutic factor, and above all a tool that nursing care cannot forego.

Bibliography

- Akerman E, Granberg-Axell A, Ersson A, Fridlund B, Bergbom I. Use and practice of patients' diaries in Swedish intensive care units: a national survey. *Nurs Crit Care*. 2010 Jan-Feb;15(1):26-33.

- Artioli G, Amaducci G, Narrating of one's illness, Carocci Faber, Rome 2007.
- Bertolini G. Choices in life. The care experience at the ICU, Guerini Publishers, 2007.

12.00 - 12.15**Communicating through pictography at the Emergency Department - an experience of the Polyclinic Tor Vergata in Rome.**

Marco Romani, Girolamo De Andreis, Fabio De Angelis, Emanuela Cardoni, Angela Infante, Maddalena Galizio, Polyclinic Tor Vergata Rome

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The "mission" of the A&E Department is to guarantee response and immediate interventions, suitable to patients who enter the hospital, whether they are natives or of other cultures. As a matter of fact, not being able to communicate in the same language is an obstacle in patient-operator relations.

Pictography is a form of writing wherein the graphic sign called pictogram, depicts something that is seen and not heard, as occurs in syllabic writing with consonants and alphabets. Practically, it is an attempt to represent an object and not a sound. Trans-cultural communication is interaction in which communication skills of two people interact against a background of diverse cultures.

The encounter between these two concepts is at the base of the Pictograph Group in the Polyclinic Tor Vergata, which tried to experiment in creating an innovative manual that espouses the written word with images, with the transcultural testimonials. A simple device, this manual in twenty languages is accompanied by a set of colored and explicatory images, intended for healthcare operators of the A&E - Department, to improve their communication, linguistic and cultural skills, to help them handle the difficulties they encounter when they have to gather information regarding a foreign patient, or one whose family uses non verbal communication .

This is a suitable training course for healthcare operators through training on Transcultural Communication and Artistic Laboratory, with the use of images on identity and alterity.

12.15 - 12.30**Stress management and team integration in the ICU. The self-help group.**

Domenica Stelitano, Cardiology Department, Polyclinic "A. Gemelli", Rome
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Health operators work in teams and in groups, and this is subject to very delicate, socio-relational dynamics between health operators and operators-patients. Psychodynamic interpersonal and behavioural manifestations may be several and the disregard of these may be a cause of stress. "Occupational stress" on a purely practical basis is manifested by the lack of synergy of teams, socio-relational problems between operators, and implications of an unproductive psycho-affective relationship in caring for a patient, especially in intensive care.

High levels of stress have an impact on "health professions" and affect the quality of care as well as the health of operators and therefore impacts on public health costs.

According to the Italian Federation of Local Health Units and Hospitals (FIASO), stress affects almost one out of four European workers and is the second work-related health problem leading to a cost for lost work days equal to 20 billion in 15 European countries.

This study includes a literature review on the possible role of group therapy in the form of support groups to face this emerging health and social problem, still poorly addressed.

At the moment, the data seems to demonstrate the effectiveness of the support groups, both in the intensive care unit and in the normal department, with derisory costs and the only limitation of having to be repeated over time.

Support groups would also be useful as psychological training tools for nurses, doctors, and other health operators, to provide them with the appropriate knowledge to better address the relationships associated to care.

References

- Imbasciati A. Clinical Psychology. Manual for the training of care operators. Piccin Editore Padova, 2008.
- Satterfield MJ, Bacerra C. Developmental challenger, stressor and coping strategies in medical residents: a qualitative analysis of support groups. Medical Education, 2010;44: 908-916.
- Peterson U, Bergstrom G, Samuelsson M, Asberg M, Nygren A. Reflecting peer-support groups in prevention of stress and burnout: randomized controlled trial. Journal of Advanced Nursing 2008;63 (5), 506-516.

12.45 - 13.00 Debate

13.00 - 14.00 lunch break

17 November 2011 - Morning - Conference Room 3



Continuity and Network 1

Moderator: Elio Drigo

8.30 - 8.45

Clinic Coordinators in the Emergency Area; the experience of Tor Vergata Polyclinic of Rome.

Marco Romani, Girolamo De Andreis

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The Tor Vergata Polyclinic of Rome, with its mission to "Create a new model of an open, safe and humane hospital" aims at achieving a new concept of healthcare. The values targeted focus on the central figure of the sick person and his dignity as a person, and the care, respect and commitment at the exclusive service of the citizen. In 2006, the Polyclinic started up a program to improve the quality of care, and instituted the figure of the Clinic Coordinator. The project's objective was to adopt a common and participated work methodology and create standardized operating tools to verify and monitor the healthcare services rendered.

The activities of Clinic Coordinators encompassed the following aspects: estimation of needs for training, analysis of the critical points regarding clinical activities of nursing staff, establishment of the intervention priorities, and organization of departmental training and intra-departmental courses; planning for the insertion of newly hired staff in line with the corporate project; identifying the critical points, establishing the priorities and coordinating the activities of the Work Groups in order to set up the procedures and protocols so as to operate independently; participating in the creation of operating tools and nursing documentation in collaboration with other Clinic Coordinators, to create an atmosphere of cooperation and consultation oriented towards the standardization of these elements; and directing the use of the tools created for the analysis of research data.

The Clinic Coordinator pursues the suitability, efficiency, efficacy, and safety of clinical practice in an environment that is attentive and sensitive to the enhancement of professional growth, to transform personal actions into good practice.

8.45 - 9.00

Introduction of the TNC nurse (Trauma Nurse Coordinator) within the trauma system: a project proposal.

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Caring for serious trauma patients requires experienced and highly qualified nurses, and the maintenance of adequate skills. This report underlines the need for continual care, in order to ensure the permanent presence of nursing staff during diagnostics-therapeutic pathways, and assess the role of the "Trauma Nurse Coordinator" (TNC).

A review of literature allowed us to focus on the qualifications of the TNC charged with:

1. *The organizational role and participation in the department's economy so as to direct care activities according to cost-effectiveness criteria.*
2. *Continuous monitoring of the quality of care and outcomes even in the rehabilitation phases.*
3. *Improving the quality of roles assumed through negotiation and management of resources by improving efficacy and efficiency in caring for trauma patients.*
4. *Coordinating resources, facilitating therapies and improving the economic status by correct usage of financial resources, and having the ability to reduce the length of hospital stays by 25%.*
5. *Maintaining continual assistance with time.*

The TNC also covers both a clinical care and the managerial role, with an eye on "epidemiological control."

This manager may be inserted in the organizational structure of a trauma system in a multi-disciplinary manner with supervision and coaching functions.

These are the descriptions of the characteristics of and proposal for a multi-centralized task directed towards the implementation of the TNC within the Italian system.

9.00 - 9.15

Standardization of a clinical pathway for patients treated with noninvasive mechanical ventilation.

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Introduction: noninvasive mechanical ventilation (NIMV) is actually recognized as an effective treatment for several respiratory diseases, such as chronic obstructive pulmonary disease (COPD) exacerbations. In recent years the use of this type of ventilation was increased and NIMV has gradually spread to affect not only critical care areas and emergency departments.

The patient with a respiratory disease can be treated with NIMV in different contexts, from emergency to ordinary wards, often with different and unstructured approaches.

Main objectives: the purpose of this report is to analyze the current status of clinical pathways of patients undergoing NIMV, identify areas for improvement, and in particular, standardize the treatments within a hospital.

Methods: a training course for nurses and doctors is being programmed to develop the skills needed to identify patients with acute respiratory failure and implement appropriate treatment through a standardized pathway. In the preliminary phase of this project, we administered a questionnaire to nursing staff of medical wards to analyze issues related to NIMV, particularly, treatment and materials used.

Results: among the various issues highlighted by the results, we believe that the lack of uniformity in the application of ventilation therapy (time, IPAP and EPAP, arterial blood gases controls) represents a fundamental starting point for an improvement project. Another useful tool could be the establishment of a centralized database for NIMV treatment, including cases in which patients required emergency tracheal intubation and unforeseen intensive care unit (ICU) admissions.

Conclusions: a clinical pathway for NIMV treatment which defines cycles of therapy and controls, and the adoption of the same instrumental equipment (ventilators and interfaces) for all hospital departments, can contribute to an optimal integration of medical and nursing expertise with greater continuity in clinical care.

9.15 - 9.30

Adapting nursing skills to achieve correct Continuous Renal Replacement Therapies (CRRT) in the ICU.

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Introduction: carrying out CRRT (Continuous Renal Replacement Therapies) in the ICU is complex and at times too standardized so as not to allow the improvement of results for the critical patient. The integra-

tion of knowledge and skills, and evolution of relationships between the different professional roles, in recognizing the mutual value and overcoming paradoxical barriers between various services, have paved the way for the creation of an integrated healthcare model to ensure safe and updated treatment of CRRT in the ICU for the benefit of patients.

Aims: to perform an analysis of a healthcare and organizational model in order to achieve updated and safe CRRT.

Materials and methods: through a simple telephone interview, data from the most diverse organizational models was compiled to guarantee CRRT in about 20 ICUs in Italy. We then compared the data with our own organization.

Results: an exclusive pool consisting of a restricted group of nephrology nurses but who were well prepared and constantly updated on dialysis techniques for acute patients, was created and has been performing for many years now, the rapid and safe implementation of advanced CRRT techniques. The clear distinction of expertise between the two nurses involved (IC and Nephrology) and the mutual exchange of knowledge, has brought about a professional development on both parts, globally emphasizing the value of the nursing profession.

Conclusions: because of the integration and cooperation between the IC and Nephrology nurses there was no competition between the two roles, and in fact, the potentialities of both were enhanced.

Our experience of the integration between the critical care and nephrological areas set the grounds for an optimal development of expertise, and improved the quality of nursing services with an effective use of resources. The training and educational processes arising from the integration clearly impacted on the use of the best human and economic resources and furthermore, ensured mutual support between colleagues of different areas.

9.30 - 9.45

Continuity of care: the experience of activating an outpatient follow-up infirmary for patients discharged from an ICU.

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Background: subsequent to the drafting of a nursing form for the discharge of patients, the entire IC team felt the need to activate an outpatient multidisciplinary follow-up infirmary with the aim of keeping in touch with the patient after discharge, and maintaining the link between the hospital and the patient at home. Several international studies have shown how

development of projects promoting the continuity of care in hospitals and care centers, like the outpatient follow-up infirmary improves the quality of care, increases the patient's treatment-outcomes, and reduces re-hospitalization and consequent costs.

Aims: the aim of this study was to analyze and evaluate the patient's health and life activities one year after discharge from the ICU, give assistance when needed, and solve real or possible problems of the patient and his family.

Material and methods: in June 2011, a fact-finding investigation started, involving around 30 patients contacted by phone. These patients, accompanied by the caregiver (when needed), were sent to a outpatient follow-up infirmary for a multidisciplinary interview (with doctor, nurse and psychologist in charge of the project), physical examination and the filling up of two questionnaires, one each for the patient and care giver.

Results: there are very few facilities in Italy that offer outpatient care at home or in the consulting infirmary to address their needs for intensive and invasive care when their lives are endangered. This situation often urges the patient to ask for help, generally from a member of the family.

The data is still being collected and processed.

Conclusion: multidisciplinary assistance makes the outpatient consulting infirmary a reference point for the patient and his family. The possibility of using such a facility gives essentially four benefits:

1. *It allows the best physical and psychological outcomes for the patient;*
2. *It allows continuous monitoring of the patient's health;*
3. *It allows the family's support and help;*
4. *It gives economic benefits in the prevention of recurrences that require further hospitalizations.*

9.45 - 10.00

Continual healthcare from the hospital to outpatient assistance programs. An experience of the ICU of Cagliari.

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Some patients hospitalized for neuromuscular pathologies, respiratory diseases, and strokes may have permanent impairments in their vital functions and once discharged from the ICU environment, must join the outpatient health assistance program since they and their families still need technical and socio-healthcare support.

A post-survey study assessed the role of ICU nurses in

providing home-care for these patients.

The survey which was performed on a sample of 40 patients assisted in their homes or in nursing homes from January 2008 to June 2010, differentiated and identified the specific interventions of specialized nurses as compared with the medical and social services, evaluated the impact of these services on the patient and his family, and lastly, assessed the outcomes.

Within the multi-disciplinary team, the specific role of nurses was highlighted in the laying out, in strict synergy with the District Home-Care Service, of the personalized care plan of each patient, resource material and medical technologies needed, bureaucratic papers to be prepared to ascertain disability, the request for healthcare subsidies, and the notification of the 118, the national electric supplier and the municipal social service to define a training plan for the family and care givers, providing psychological support, besides advanced nursing aid in the respiratory, cardio-circulatory and nutritional problems.

The study evidenced a high level of cooperation between the family and the regional healthcare services, whereas cooperation with the municipal social-welfare service sector appeared to be inadequate. There was a better outcome for patients who were treated in their own homes (one death out of 15) compared to those admitted to a Nursing Home (8/25).

To conclude, we can affirm that taking charge of outpatients and rendering continuous assistance to patients discharged from the ICU are tasks entrusted mainly to nurses, though they are only part of a multi-disciplinary team.

10.00 - 10.15

Organizational integration paths aimed at the optimal application of the rehabilitation project customized for patients with severe brain injuries.

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Introduction: an advanced rehabilitation setting is characterized by the presence of several professionals. The highly complex organizational integration requires flexibility in particular from the welfare support figures for the preparation of patients for rehabilitation and complex care.

Switching from a task-based organization to personalized assistance requires sharing of rehabilitation projects within the team and continuative operating methodologies. Success depends on the adjustment of the specific activities, from participation to design, construction and appropriate use of organizational integration instruments.

Most often, the possibility to simultaneously hold different types of activities for the person assisted, can lead to misunderstandings between the various professionals, dispersion of competences, discontinuities in the pursuit of rehabilitation goals, organizational hitches, and discomfort to patients.

Aim and path: to systematically identify and adopt tools and integration methods for a more effective and efficient organization aimed at the application of the custom rehabilitation project.

The tools are in part, elements of improvement of the clinical documentation. All the assistance operators, assistance support operators and rehabilitation operators were involved in various ways.

Indicators:

1. Meetings were held to discuss critical issues, hypotheses of solution paths, and presentation of samples of clinical documentation and organizational integration tools;
2. The tools were identified and adopted in a systematic way:

- the integrated schedule of personnel was reorganized,
- integrated operating/welfare/rehabilitation directives were documented,
- collaboration was made possible for diet support activities, prearrangement and application of rehabilitation aids, etc...

Results:

1. Reduced hitches in scheduling rehabilitation activities;
2. Improved coordination of rehabilitation activities;
3. Systematic adoption/compilation of the specific activities' monitoring boards (advisors, appropriateness of the use of diapers with rehabilitative purposes - sphincter control...)

10.15 - 10.30 Discussion

Coffee Break

Continuity and Network 2

Moderator: Nora Marinelli

10.45 - 11.00

A continual care "relay" for patients with severe Sepsis-Associated Encephalopathy (SAE).

Stefano Bernardelli, Alfio Patanè, Laura Pigliacelli, Francesca Magrella, Daniela, Mele Daniela Bonfante, Elena Rizzi, Mara Sartori, Beniamino Micheloni, Elisabetta Allegrini,

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The Emergency and Intensive Care Department of the AOUI in Verona serves a territory with 800,000 inhabitants and is characterized by excellent medical services like heart surgery, neurosurgery, and polyvalent intensive therapies.

The care programs for patients affected by SAE represents a relevant socio-sanitary problem because both their numbers and life expectancies are progressively increasing, as knowledge and techniques develop in the field of resuscitation and the quality of nursing services improve. The

problem that has arisen for some time now is the identification of facilities for the implementation of extensive rehabilitative interventions or the placement of patients with severe results, not otherwise treatable at home. These are principally subjects who cannot be discharged for clinical, social or assistance reasons.

The different elements of social frailty (precarious economic and living conditions, inadequate or absent family ties, irregular citizenship registration and insurance position of patients with foreign citizenship) at times made it impossible to discharge these patients hospitalized in operating units under severe conditions, or disability, with an extension of hospitalization and an increase of costs charged to the National Health Service.

To set up a program of integration between healthcare and social welfare professionals and the different healthcare structures involved at different levels of treatment of SAE patients, an experimental procedure was activated in January 2009 undertaken by the Operating Units involved in AOUI of Verona, the Rehabilitation Departments of ULSS 20 of Veneto and the Sacro Cuore Don Calabria Hospital in Negrar (VR). This was done in order to define, starting from the intense phase, an integrated model that could assure timely and adequate rehabilitation procedures to be offered by the healthcare and welfare components involved.

References

- Region of Venice, Regional Council. Regional Social-Healthcare Plan 2011 - 2013. Dgr n. 15/DDL of 26 July, 2011
- The Chronic Care Model. http://www.improvingchronic-care.org/index.php?p=Decision_Support&s=24 last accessed 16/07/2011

11.00 - 11.15

Economic impact of a nurse-managed follow-up program for patients needing long-term oxygen therapy (LTOT).

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Introduction: LTOT is an essential therapy for patients with chronic respiratory failure and is a big expenditure item for healthcare companies. Follow-up is a major issue in the therapeutic approach of LTOT patients.

Purpose: to evaluate the effectiveness of nursing management in the follow-up of patients under LTOT.

Description of intervention: structured and integrated implementation of nursing diagnosis in the follow-up of LTOT patients. We created a new tool based on the nursing process to unify and standardize the nursing language used in communicating with patients and to build an adequate database for the analysis of results. Moreover this tool was devised to highlight inappropriate prescriptions by the physicians and misconduct in the home-use of oxygen therapy by the patients. Finally, this tool is an educational approach that can correct improper usage by patients.

Results: main results are shown in the following table:

N° Visits	Type variations	Extra consumption	Misuse	Net saving cost	N° Patients LTO
1250	32%	56%	49%	37% (1.7 to 1.0 Million of euro)	- 22,6%

Conclusions: we found that the cost-effective factors are essentially attributable to the reduction of the total number of patients confirmed to need LTOT and to the reduction of global oxygen consumption due to inappropriate overuse of LTOT by the patients.

11.15 - 11.30

The key role of District Nurses assisting and managing patients using Long-Term Oxygen therapy (LTOT) at home.

Lucia Fontanella, Alessandro Benvegnù, Primary Healthcare District 4, Azienda ULSS 12 of Venice

Dott. Pietro Serena, Pneumology, Healthcare ULSS 12 Venice

Dott. Federico Munarin, Healthcare District Unit ULSS 12 Venice

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Introduction: increasing numbers of individuals with respiratory diseases and in need of LTOT and the high costs involved, require careful resource management to improve efficiency and effectiveness of treatment. Among other resources, district nurses play a key role. The aim of this study is to examine the risk of infection related to poor management of equipment used in LTOT and compliance with prescribed treatment.

Materials and methods: a research was conducted in September 2009, based on a transversal observation of a sample group of 46 individuals living in the territory of the Venetian national health service authority and who took part in the survey by answering a questionnaire. None of them was followed by a district nurse for their therapy.

Results: among patients using oxygen less than 15 hours a day, 61% did not comply with the treatment time prescribed. Thirteen percent said they had not received any information about the use and safety of oxygen therapy equipment, although all the firms supplying LTOT equipment usually give specific written instructions. None had followed the guidelines correctly as to the hygiene of equipment (humidifiers, nasal cannulas, masks, etc.). However, a "passing" grade for hygiene was reached by 39% of the patients. The link between levels of hygiene evaluated as "failing" scores and declared episodes of bronchial infection (OR: 4.71) was very clear.

Discussion and conclusions: literature shows that health education strategies and specialized home care programs lead to the reduction of mortality and exacerbation in chronic respiratory diseases. Therefore, district nurses acquire an economically relevant key role in tertiary prevention.

Although limited, the data invites us to further investigate in order to quantify the link between hygiene of oxygen therapy equipment and respiratory infection in home settings. The subject of this study is also suited for the assessment of the effectiveness of educational programs carried out by nurses.

References

- Federchemical Assogastechnic group of gas drugs. Guidelines for the safe supply and use of oxygen therapy equipment. 1st edition. Milan 2006, <http://assogasliquidi.federchimica.it> last accessed -12-2009
- Rizzi M, Grassi M, Pecis M, Andreoli A, Taurino AE, Sergi M, Fanfulla F. A Specific Home Care Program Improves the Survival of Patients With Chronic Obstructive Pulmonary Disease Receiving Long Term Oxygen Therapy. Arch Phys Med Rehabil 2009; 90(3): 395-401.

- McGoldrick M. Preventing Infections in Patients Using Respiratory Therapy Equipment in the Home. *Home Healthcare Nurse* 2010 Apr; (28): 212-20

11.30 - 11.45

Prospective study on compliance with cardioprotective therapy standards and the no-smoking rules in a nursing infirmary for ischemic cardiopathy.

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Introduction: a recent report of the World Health Organization (WHO) indicated that 50% of users affected by chronic pathologies evidenced a low response to pharmacological treatment and did not achieve the patients' change in lifestyle. This fact evidenced the need to introduce new intervention technologies, in both pre and post discharge phases.

Aim: this study was conducted to verify the response to pharmacological therapies and the changes in lifestyle of ischemic cardiopathy patients who were followed by a tele-monitoring and tele-healthcare program in the first month after discharge, with infirmary follow-ups at intervals of three to six months and one year with regular telephone contacts in between.

Method: the study was conducted from October 2007 to July 2009. In the first month after discharge, the patients were followed up through tele-monitoring and tele-assistance methods with weekly phone calls from nurses who started up a healthcare educational path on therapy (β -blocking, ASA, statine) and on the abstention from smoking. After 30 days, a cardiac visit was performed for protected discharge prepared for through an interview with the nurse. The infirmary follow-up (A) consisted of cardiac visits programmed for an interval of three to six months and one year, with telephone calls from nurses programmed at two to four and eight months. The patients who voluntarily dropped out from the program after the first month, were inserted in a Usual Care Group (UC) and were contacted again on the phone after a year to verify the response to the therapeutic plan and abstention from smoking.

Results: the data of the 737 users (128 women and 609 men) with a mean age bracket of $60,6 \pm 11,1$ years, 31% (n=231) anterior NSTEMI, 29% (n=215) anterior STEMI, 25% (n= 185) NSTEMI in other sites 15% (n=106) with unstable Angina. Out of these 737 users, 70% (n=517) completed the path, 21% (n=155) was followed in usual care (UC), the drop-outs were 7% (n= 48), the deceased were 2% (n=17) out of which 0.6% (n= 6) in the first month of follow-up. After one year, the fundamental role of a

dedicated ambulatory was evidenced, with regard to the failure to adhere to the therapy with β -blocking (A 90.9% vs UC 76.2%; p=0.018)), with ASA (A 93.2% vs UC 87.3%; p=0.007) and with statine (A 93.1% vs UC 80%; p=<0,001). As to abstention from smoking, the positive results were recorded at the follow-up after 30 days (24.7% vs 50%; p=0,011) whereas after one year there was a revival of tobacco habits (30.7% vs 52,8%; p=0.057).

Conclusions: the results demonstrated how an integrated circuit (cardiological-dedicated ambulatory) allowed the state of compliance with the therapy and some changes in lifestyles to be measured through continual assessment with the indirect method (interview) together with an educational program performed by nursing staff, and opened out new diagnostic-therapeutic paths targeting more suitable and effective care in the post-discharge phase.

11.45 - 12.00

Integrated hospital-regional healthcare, based on nurse-infirmary management of patients with chronic cardiac insufficiency.

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The socio-demographic changes that have come about over the last decade, have changed the healthcare scenario, shifting the axis of acute pathological care to the chronic ones. Among the most incisive pathologies strongly connected to aging of the population, chronic cardiac insufficiency (CCS) is one of the most important, and implies a remarkable rise in healthcare expenditures. The need for new organizational models was evidenced, for the integrated hospital-region management of patients with CCS. Through a bibliographic study, organizational models experimented on in Italy and abroad over the last decade were analyzed, in order to evidence the fundamental role nurses may play in this context.

The management model of a nursing infirmary, strictly coordinated with heart doctors, proved to be excellent in handling CCS patients in every phase. The nurse could assume a strategic role in this sector, given that this caregiver is more strictly in contact with the patients and their families. On the basis of this care model, the use of an information brochure was proposed to offer educational information and partly for the self-monitoring of the patient, backed by a suitable program and a suitable telephone follow-up which proved to be valid tools for both nurses and patients. The objective was to make patients aware of their illness and make them actively participate in their own care plan, with the consequential improve-

ment of compliance to the therapeutic prescriptions. These organizational models, though still in the experimental phases, have shown to be winning strategies in the reduction of hospital admissions and improvement of the quality of life, with great savings on the part of the NHS in face of limited costs in constituting nurse infirmaries. This proposal is a challenge and an opportunity for a new approach to healthcare. At the same time, it upholds the role of nurses and above all, prolongs and improves the quality of the CCS patient's life, which also translates into cost-containment for the community.

References

- Krumholz HM, Amatruda J, Smith et al. J. Am. Coll. Cardiol 2002;39: 83-89.
- Scardi S, Humar F, Di Lenarda A, et al. G. Ital. Cardiol., 2007;8,83-91.
- Valle R, Carbonieri E, Tenderini P, et al. Ital. Heart J. 2004, Suppl, 5, 282-291.

12.00 - 12.15

Nurse-Management of long-term hospitalization: a project of the University-Hospital Enterprise of Parma.

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Introduction: the LIDI project is part of the development program for long-term healthcare established in the University-Hospital enterprise of Parma following the regional Resolution No. 1455-28/07/1997. In the downsizing project, long-term hospitalization was totally inserted in the Joint Department of Geriatrics and Rehabilitation with a remarkable improvement in the organization and clinical management of patients.

Aim: to set up a "simple unit" of long-term hospital care managed by a nurse, working in synergy with the local health care system in order to guarantee continuity and safety of the care processes and the hospital discharge of fragile patients.

Objective:

1. *Integrative care of patients who have already been submitted to diagnostic and therapeutic procedures in hospital departments.*
2. *Organization of a personal hospital discharge plan for each patient, integrated with the staff of the Healthcare Unit USL of Parma and the Primary Care Physician whose role is extremely important, both in professional and organizational aspects, in keeping as short as possible the period of hospitalization.*

Methods: the LIDI is a so called "simple unit" within the Complex Unit: Internal Medicine and Critical Long-Term Critical Care. The Nurse Coordinator has the responsibility to organize and manage the unit,

make decisions on the eligibility of patients to be admitted into the unit, and maintain relationships with long-term care units of other public or private hospitals with public service. The Chief and the medical staff of the Complex Unit are responsible for the medical management of the patients. The discharge of the patients is the result of the interaction between the LIDI and Local Healthcare Center (AUSL), the hospital and non-hospital social services, the whole territorial healthcare system, and the Primary Care Physicians.

Conclusions: the designation of "integrated long-term healthcare," on one hand, refers to the relationships with the hospital department of the patients (Internal Medicine and critical Long-Term Hospitalization), and on the other hand, to the relationship with the regional healthcare system.

The patients often need further therapeutic measures also after their discharge from the hospital, in order to avoid the need for a readmission to the hospital in a short time. Very often it is important to organize a so-called "protected discharge" to the patient's home and when this is not possible, it is important to send the patient to a suitable territorial nursing home.

12.15 - 12.30

Results of the ECMONET network in Italy for the management of patients with acute respiratory failure.

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Introduction: in 2009, the Ministry of Health identified 14 centers nationwide for the management of patients with ARDS to be subjected to ECMO treatment. It was organized with an advanced transport service (three ICU doctors, one critical care nurse and one cardiovascular perfusion technician) to transfer patients from outlying towns to the reference centers. The transport network covering the national territory benefited from the Air Force military cooperation and suitably identified road transport vehicles.

Objective: to centralize and standardize ECMO treatment of patients with ARDS, together with standardized procedures for the transport of the ECMO patient and check the impact of the abovementioned factors on mortality.

Results: in the two winter seasons of 2009/2010 and 2010/2011, 130 patients were treated. Of these, 61 were sent to the referral centers. There were 60 patients who received ECMO treatment. Out of the 60 patients, 28 were transported with ECMO extracorporeal circulation to hospitals in the suburbs.

Thirty-three patients were transported without ECMO. There were no major complications during any of the transfers.

The overall survival rate of treated patients was higher than 70%. In ECMO patients, those who met the criterion of centralization with mechanical ventilation <5 days before contact with the network ECMOnet had a survival rate of 77%. Patients who reported late to the network and subjected to ECMO had a survival rate of 33%.

Conclusions: the ECMO has allowed us to reduce costs related to the application of ECMO with a major impact on mortality of assisted persons subjected to ECMO.

The centralization of patients has allowed us to make better use of the National Fund (25,000,000.00). The ministry's budgeted expenditure, without centralization of patients was over 30 million, and would have been charged entirely to the regions.

References

- Patroniti N, et al. The Italian ECMO network experience during the 2009 Flu A(H1N1) pandemic: preparation for severe respiratory emergency outbreaks. *Intensive Care Med.* 2011 Jul 6. [Epub ahead of print]

12.30 - 12.45

The creation of standardized Medical Records in Northern Italy to monitor brain death.

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Introduction: the process of organ donation is always complex, but its value is easily measurable, since the inevitable death of an individual, can help improve the quality of life of another person. _On this basis it is mandatory to demand a careful management of the donation process at every stage, through codified steps and in this process, the assigned nurse has an obligation to provide the tools and complete services.

Aim: to this end, the group of nurses targeted the improvement of this complex NIT process and to avoid wastage of important resources, decided to design a new, standardized tool which could be useful during the more complex phases: clinical observation of brain death. Standardization of the work method in different situations, can only improve the complex process.

Methods: the regular meetings of representatives of various organizations working in northern Italy, made it possible to compare individual experiences and highlight weaknesses and strengths of each. Joint work led to the completion of a first draft of a folder only for the measurement of parameters.

Results: the project is still ongoing, but the first posi-

tive results have already emerged. Standardization of such a complex process in so vast a territory with diverse experience has resulted in the unanimous agreement among the various participants who underlined the importance of the nurse's role.

1st aim - direct: creating a common tool;

2nd aim - indirect: the comparison between different situations to evidence unanimous opinions on the role of nurses.

Conclusions: the steady growth of the specialized nurse's role was the first major result that emerged. With the knowledge attained, the specialized nurse is essential to disseminate information about the project, encourage membership, and raise awareness of health professionals and the community.

12.45-13.00 Discussion

13:00-14.00 Lunch break

17 November 2011 - Morning - Conference Room 4



Integration and Sustainability

Moderator: Luca Peressoni, Marco Marseglia

8.30 - 8.45

Nurse-Doctor Interactions.

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Introduction: literature has underlined a general agreement as to inter-professional cooperation between doctors and nurses, to ensure better quality of care and impacts on the positive outcomes and lowering of healthcare expenditure, in comparison to reduced efficiency of care caused by the professional dissatisfaction of nurses.

Objectives: to describe the interaction level between doctors and nurses, awareness levels of nurses regarding their own roles, and independence and responsibility in identifying the impressions nurses have of their own role.

Materials and methods: the Jefferson Scale Of Attitude Toward Physician Nurse Collaboration, was used (Hojat et al 1997).

Results: it was sustained by 97.6% that the nurse should be considered as the doctor's partner, and 88.3% think that doctors and nurses should participate together in the decisions regarding the patients' discharge. Only 34.1% of nurses and doctors decide together/share the decisions made on the therapy of patients. For 38.8% there is a clear communication between doctors and nurses in decision making, and for 42.6%, the doctor gives nurses complete information.

It was confirmed by 80.7% that nurses are qualified to assess and respond to the patients' needs. All the nurses affirmed they are independent in the performance of their activities, especially in "managing" the patients' needs. The nurses stressed the need for independence with the possibility of making decisions regarding care and in implementing the prescribed therapy to improve the patient's physical or psychological health outcomes.

Conclusions: working together effectively is the best basis for a concrete application of the nurse's role, as laid forth by the spirit of laws that have redesigned the professional role of nurses in compliance with criteria of enhancement, responsibility and taking charge of the sick.

8.45 - 9.00

Reviewing the quality of A&E triage: continuous audits between professionals.

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Introduction: triage activity is one of the main crucial junctions of the entire professional and organizational activities of the A&E Department. The GTT (Tuscan Triage Group) recommends and supplies tools for the continual review of the quality of its services with the aim of evidencing and limiting errors.

Aim: to verify the trend of errors arising at the triage area and specify their types through a systematic audit of the process with the drafting of ad hoc reports.

Materials and Methods: for two years now, the A&E of Nottola Hospital has been implementing a systematic, monthly audit of the quality of triage. At the meetings the nurses assigned to triage, reviewed the color coding charts, and found that a first analysis performed by a specific work group appeared to be erroneous. The nurse group discussed the charts analyzed, taking as the reference point the GTT pocket-guide related to the main triage algorithms. The GTT elaborated furthermore, a specific tool with sensitive data that decided on the choice of the code and underlined through dichotomous methods, the field of error. The insertion of this tool is a novelty for quality audits, inasmuch as they can evidence exactly where the error of the triage chart lies.

Results and Conclusions: August 2009 = 2,810 admissions, 258 processing errors, (9.18%)

February 2010 = 1,957 admissions, 45 processing errors (2.30%)

After the introduction of the GTT quality review index: June 2011: 13,656 admissions 30 processing errors (0.21 %)

The attitude of the nursing group was always positive, and the participation rate at meetings was very high and with many discussion points.

References

- Galgano A. Seven tools for total quality. Il sole24ore Editors, Milan, 1996
- Pignatto A, Regazzo C. Organization and quality of socio-sanitary services. Carocci-Faber, Rome, 2000
- Tuscan Regional Group of Triage trainers. Practical guide to triage functions. Region of Tuscany, 2008-2009

9.15 - 9.30**The S.A.R.I. Project (Advanced System of Nursing Response) of C.I.V.E.S., Coordination of Nurse Volunteers for Healthcare Emergency.**

Rosaria Capotosto, Michele Fortuna, National Association C.I.V.E.S. Onlus

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In light of the Abruzzo experience, the C.I.V.E.S. Association (Coordination of Nurse Volunteers for Healthcare Emergency), created the S.A.R.I. Project (Art. 21 of the OPCM n. 3797/09) to optimize human resources, materials and suitable means to face the healthcare demands of Emergency scenarios and respond through an independent nursing structure able to offer high quality, sustainable and effective healthcare relief work.

The S.A.R.I. aims to furnish to the National Healthcare Emergency System and the population hit by calamities, qualified teams of nurses who are immediately operative and self-sufficient in logistics and equipment, and can supply adequate direct support together with doctors and the general territorial network.

The S.A.R.I. Project, was delineated by C.I.V.E.S., thanks to observations which were referred to by nurses operating in the sector during the seismic emergency in Aquila. Drafting of the project was backed up by the analysis of the intervention after the emergency and the support of the national .IP.AS.VI. Nurses' Register.

The S.A.R.I. Project aims to achieve:

- an innovative concept of the nursing profession within particular fields such as rescue/relief work during a catastrophic event;
- an organizational procedure to prepare integrated healthcare relief work during an emergency, starting from the evidence that a great part of sanitary interventions were performed immediately after the calamity struck, and which could be carried out by C.I.V.E.S. nurses, specifically prepared to offer general nursing assistance to ensure public health. During the interventions in Aquila, the C.I.V.E.S. nurses prevalently answered to the needs of the elderly and children. They installed infirmaries for medications, therapeutic injections, diabetes screening, etc., and made use of tents installed to house the population and serve also as infirmaries.

General practitioners were also able to make use of true and proper infirmaries for their activities, thanks to the presence of the C.I.V.E.S. nurses. Lastly, the data demonstrated that the continual presence and turnover of shifts with qualified and expert C.I.V.E.S. nurses performing chief roles in the duties of two Healthcare teams at the COM 3 of Aquila more than anything else facilitated the flow of connections within the

administrative chain in command, acting as the ideal link between those possessing the right expertise and able to offer the best services.

9.30 - 9.45**Nursing in the National Healthcare Emergency Department: innovation and strategies for sustainable relief work.**

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Introduction: the current global crisis has forced us to reconsider the dynamics governing society: the correct value of people and things. This does not exclude the nursing profession, which has to be an increasingly active and enlightening part of society's renewal. Innovation and evolution were key words, which led, through critical judgement, to the CIVES experience during the emergency brought about by the earthquake in Abruzzo, to the creation of a Nursing System within the framework of the National Emergency Department.

Aims: the work aimed to uphold the development of advanced nursing skills, as a specific contribution of professionals in emergency situations, to be integrated with the National Emergency Organization for effective, efficient and sustainable relief activities.

Materials, methods and results: presentation of the organizational and time-space patterns followed, to reach the production and approval, within the National Emergency System, of an independent, operating nurse unit which also assumes the role of integrating the activities of various relief groups in the short/mid term. The analysis of the experiences of nurses who participated in the rescue activities after the Abruzzo earthquake, brought to light the decisive factors that led to the creation of a sustainable, independent organizational model (with staff, materials, equipment and vehicles) and upheld the role of nurses.

Starting from their own principles and referral values, concrete examples were given of the professionalism of nurses in aspects related to clinical, organizational and complementary activities, along with the integration and discussion on the use of resources available in catastrophic events.

Conclusions: the work highlighted the important innovative feature of the entire professional sector, that formally recognized the expertise and responsibilities of nurses over a broad range of sectors (clinical, organizational, relationships) in extremely critical/complex situations.

What will also be specified is the quality of the overall results of nursing interventions with a model pro-

posed also as an economic factor, and generally for the benefit of the community involved in the particular event. The report will assess, according to events involving the civil defense organization, the most suitable options in terms of distribution of human and material resources. The new concept of managerial nursing that is able to plan interventions during emergencies, is certainly an important challenge to be faced by the Nursing Profession in moments of economic crisis, so as to contribute to promoting the importance of the role nurses play in society through values and principles typical of their profession.

9.45 - 10.00

Why the Emergency Hospital in Sierra Leone was extended: its impact on therapeutic regimens, management of the clinic's downgrade and the training of local nursing staff.

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The report informs the national nursing organization about the building works performed on the Hospital of EMERGENCY in Sierra Leone and the impact of the work on the therapeutic regimen and management of the worsening conditions of the clinic's system and the efficiency of on-the-job training programs offered to local care staff. The Hospital of EMERGENCY in Sierra Leone, situated in Goderich near Freetown, began its clinical activities in November 2001. Today it is divided into 14 "operating areas," including two operating theaters and a total of 40,000 outpatients and inpatient visits only in 2010. Given the operating environment characterized by an overall lack of resources, both in materials and professionals, and the constant efforts to reach high healthcare standards for the population, in 2010 EMERGENCY decided, to extend the facilities, especially the entire Critical Care area, infirmaries and areas for auxiliary services. In accordance with the nursing guidelines of EMERGENCY, the extensive experience in the field emphasized that "good healthcare" must fundamentally consist of a careful application of a few, basic protocols: hygiene, nutrition, pain therapy and wound treatment. However the increase of surgical cases - partly highly septic - and the effort to improve and structure therapeutic response in terms of both efficacy and efficiency called for the adjustment of infrastructure and a reassessment of some protocols in use.

One of the expected results, is the added value given to the role of Critical Care nurses both during the periods when concrete care was rendered and in train-

ing phases of the local staff. In Sierra Leone as in other fields where EMERGENCY operates, critical patients affected by multi-pathologies with surgical features - both general and traumatological - call for immediate intervention to avoid clinical worsening. The role of the IC professional is crucial in the prevention and correct treatment of critical episodes, especially cardiac cases of adults and children. The related lack of sophisticated technologies and expert medical staff - limited training, and great turnover of local staff - has always demanded particular commitment and training especially of nurses who already bear the load of ordinary care activities, considering the high Bed Occupancy Rate (BOR). Nurses need to be able to identify, inform and assist in targeted and effective medical interventions; and register and identify simple clinical parameters with the use of "essential technologies."

Case histories of inpatients present a particularly complex clinical picture that requires further technological and organizational support, useful for a correct and effective performance of post-surgical care. The renovation works on the Operating Rooms and in general on the equipment and the Critical Area facilities aim to highlight the fundamental role of the IC nurse. The hospital of EMERGENCY in Sierra Leone (100 beds) presents important mean data on both the turn-over of patients in the wards and BOR, close to 100%. Guidelines and protocols regarding hygiene were once again fundamental. The interventions carried out on equipment, systems and flows (air-conditioning, filters, oxygen distribution etc.) will prepare the facility and staff for an ulterior improvement of response to the needs of the population, offered in a long-term "sustainable" manner by the national staff.

Conclusions:

- 1. The new Operating Rooms and related organization reduce the risk of co-handling the highly septic cases (mostly in emergency), and the elective surgical case history which requires high aseptic standards. The Operating Room on one hand, will increase the number of operations and, on the other, will reduce admission to surgical hospitalization given that in different elective cases, operations can be performed in day hospital regimen, with a consequential possibility of reducing Bed Occupancy Rates.*
- 2. Having more rooms available and that are less exposed to contamination of septic patients, will result in a reduction of nosocomial infections. The new Critical Care Area for example, is ventilated through more effective indoor, filtered flow systems,*
- 3. New and more ample spaces dedicated to both surgical and care activities will result in greater and more effective prevention and management of the clinic's downgraded aspects, thus reducing the fre-*

quency and extent of possible invalidating outcomes. This renovated environment favors the strengthening of training for local staff (particularly in the ICU) and focuses specifically on immediate intervention of possible critical episodes in the postoperative phase which is quite complex for patients treated in this hospital (serious polyopathologies).

4. The overall intervention, improvement of available technologies and practical usage of hospital space, favors the formation of a more complete local healthcare staff.

10.00 - 10.15

Civic audits to assess and improve quality from a citizen's point of view.

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Background: the Department of Health of the Umbria Region, under the Regional Health Plan 2009-2011, has started up the "Civic Audit" project promoted by "Cittadinanzattiva," in all regional public health authorities in collaboration with the Ministry of Health.

Aims: the audit consists in civic and systematic critical analysis of the work of the Healthcare Agencies, promoted by civic organizations in order to assess the quality of health services and give prominence to the citizens' point of view regarding the organization of such services, through participatory forms of management.

Materials and methods: the audit consisted in the civic survey of the three components of Healthcare Agencies:

1. *Guidance and information offered to citizens (requests for the service, observance of privacy policies regarding personal data, etc.)*
2. *the company's commitment to promote some important social and healthcare policies (patient safety, chronic illnesses, pain management, etc..)*
3. *the involvement of civic organizations in corporate policies (implementation and operation of users' participating institutions, etc..) implementation of inspections at selected facilities and requesting information from the general and health management offices.*

Findings: the survey conducted in 2010 showed that the Adjustment Index Standard (IAS) was taken into account with an overall average of 77, which is considered a fair score according to the grading scale. With this score, the Hospital of Perugia obtained the best result among the six health organizations exami-

ned in the Umbria Region.

Conclusions: the results of this survey showed the strengths, but also some cases of noncompliance with standards, as in the case of citizen participation in health organization services. A consolidation and improvement plan was then prepared, in collaboration with the company and associations of citizens, resulting in the correction of many nonconformities. We have to underline the valuable contribution of the nurses during the investigation and implementation of improvements.

References

○ Hospital of Perugia. Civic Audit, local report evaluation and improvement plan. www.ospedale.perugia.it

10.15 - 10.30 Discussion

Sustainability and Humanization

Moderator: Gian Domenico Giusti

10.45 - 11.00

Ethical hospitals: an experience of sustainable development applied to healthcare.

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Introduction: sustainable development signifies development that satisfies the needs of society today without compromising the possibilities of future generations in satisfying their own needs.

Aim: the aim is to establish a network of healthcare enterprises that wish to discuss and compare their experiences on the all-encompassing theme of sustainability in the environmental, economic and social fields.

The value of sustainability serves to point out a pathway that can ensure social equity in protecting health, preserving the environment and guaranteeing balance between the resources available and quality of services offered.

Method: awareness, discussion and dissemination of a concept that may appear abstract, can be developed only through the formation and interaction with other organizations that share the same belief. Because of this, the Imperia Local Health Unit 1 recently organized a meeting entitled "*Hospitals and Ethics: experience on sustainable development applied to healthcare*" which saw the participation of French and Italian healthcare enterprises (Emilia Romagna, Liguria). The former started to work on this theme in 2006 with the institution of a committee: C2DS (Comité pour le développement durable en santé) that held campaigns to achieve its objective to raise awareness among healthcare professionals to the benefit of good practices in sustainable development and improve management impacts on society, the environment and the economy.

Results: due to the success of the first meeting dedicated to sustainable development in healthcare, the grounds were set for the birth of a cooperation and exchange network not only at international but also cross-border levels.

Conclusions: the objective set for 2012 is to organize

a new event dedicated to the outlining of an agenda of common goals. This approach aims at motivating employees to promote environmental management to uphold their image and strengthen the support of the public and relations with the community, spread awareness and consciousness of the environment and produce results that can be measured to impact on production and management costs: the CREATION OF VALUES!

11.00 - 11.15

An Eco-Sustainable Healthcare System is possible! The experience of the Healthcare Unit ASL1 of Imperia.

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Background: the ASL1 Imperia has been operating since 2009 to create an Eco-Sustainable healthcare program, in an effort to involve healthcare and administrative professionals, besides undertaking an awareness campaign.

Aims: the project theme evolved from evidence that hospitals are a really "polluting industry" and that those involved in healthcare will have to increasingly contribute to national and international environmental policies. The desire and the common goal is to set in motion a positive healthcare-environment dynamics with an eye on the production sectors of hospitals to create a sustainable approach to healthcare activities.

Methods: a working group was formed and on a monthly basis, proposed, analyzed and implemented new eco-sustainable solutions in the Healthcare Units. For this purpose, a corporate intranet section was placed at the disposal of all the employees who could access the materials shared on the network, including proposals, reports of events and minutes of meetings. Finally, there was also a dedicated forum where operators could exchange and discuss their ideas.

Results: the results were swift: it was not easy to disclose a new concept of environmental sustainability and healthcare, but in small steps changes were seen. In 2010 there was a substantial cost contain-

ment related to increased recycling, the inclusion of rechargeable batteries for the use of electro-medical devices, paper consumption (double-sided prints, electronic archives, online pdf documentation) and reduction of plastic bottles. The establishment of an Eco-Decalogue started to change the trend of habits of the general public and technical operators.

Conclusions: the group's ambition is seen in its objectives: sustainable actions strictly related to health practices, e.g.: the choice of targeted therapies with the same effectiveness but with a low environmental impact. Another objective on the agenda is the integration of the concept of sustainability. In order to raise awareness among Hospital Directors in the management of their facilities through policies oriented towards sustainable development. The item of sustainability has been included in the budget proposal templates, related to the sustainable "Healthcare and Development Project." For the year 2011 the Group agreed to direct its activities towards two fields of action that can be summarized as follows:

1. *Continue working on areas already explored, because only in remembering daily correct actions that should and can be carried out, will the targeted results be achieved;*
2. *Reflect with those who are already working within the Healthcare Enterprise, as regards their wellbeing at work and the related stress it brings. A better working environment in terms of environmental sustainability can undoubtedly have a positive effect on wellbeing at work and stress reduction. The regional project, "Wellness, organizational health and psycho-social risks in the Ligurian companies," has been active since September 2010 and has drafted and developed a tool that can trigger a problem-solving process, in order to act on welfare within the organization. This project began in the Imperia Hospital (ASL1) in September 2010.*

11.15 - 11.30

Knowledge management and the intra-hospital emergency (IHE) trolley.

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Introduction: knowledge management (KM) is a set of organizational and information-wise methods, techniques and procedures which, inside a hospital, is directed towards the development and utilization of existing data, intended as an important part of a tangible patrimony, fundamental for the activity and development of the said organization. (Tasso and Omero 2004).

The management of the flow of data and communica-

tion in a hospital is of fundamental importance. Data and increased competency are a legacy and are an important resource for the healthcare system. Research shows that data, if not structured and encoded, can weigh on productivity and thus generate risk management and frustrate medical staff who, despite their commitment, fail to fulfill their care objectives for patients affected by health problems.

Aims: the project aims to improve the data related to I.H.E. by harmonizing the levels of KM: human resources, information technology and the organization of the hospital itself because the administrative structure of the hospital is a system that understands the internal and external environment and is closely related to path-dependent strategies it implements.

The project foresees KM for the handling of IHE strategies, and therefore, intends to use all available tools to formalize, gather, distribute, share data, and give explicit information about the organization, its capabilities, procedures, and documentation, with the aim of formulating a development, learning and research path while continuing to implement the best practices in emergency assistance and intra-hospital emergency care.

Materials and Methods: the development of IHE strategy management, is basically applied to organization/training and in information technology with interventions in the analysis, training, codification, collection, monitoring/supervision, research and sharing of information and data. Information technology programs like the Relation Data Base Manager System are useful. It was developed through the Entity-Relation logic model that manages and relates data so as to be able to compare, process and choose them. These fundamental procedures are used to verify the interpretative and planning hypothesis of the hospital's best practice. We created a DBMS by using the ACCESS program to monitor and handle the IHE strategies so as to obtain a significant data repository to correctly manage the following:

1. *Clinical equipment*
2. *Drugs*
3. *Hospital emergency interventions*

The project evolved through the preparation of training activities accompanying the integration of DBMS in different Operating Units of the hospital applied through cooperative learning, and even through shared platforms of WEB2.0.

Conclusions and Results: the systematic gathering of data, even those concerning the I.H.E. will lead to knowledge and scientific progress. Data processing will allow analytical and consequent retrospective investigations of therapeutic interventions performed in I.H.E. This analysis may be useful to compare other studies at international level and based on the results, the best practices and guidelines may be updated in real time. Moreover, the data may obtain an appro-

priateness/efficiency/effectiveness indicator of all care provided in the hospital's IHE regimen.

Bibliography

- Capitani P. Knowledge Management: Orientation and training tools for Schools, Universities, Research, Civil Services and Companies , Ed. Franco Angeli 2006

11.30 - 11.45

Risk Containment of therapeutic failure through the use of computerized drug prescription-dosing trolleys.

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Introduction: the nurse is the "healthcare professional" whose qualifications and know-how, determine the safety of patients who rely on his/her care. The nurse is responsible for the effective and safe administration of medicines in hospitals, and must therefore possess clinical care and management skills. Italian studies have evidenced that most of the errors found in the course of the drug therapy cycle were due to prescription (56%), administration (34%), transcription (6%) and distribution (4%). Article 40 of the Criminal Code precisely says that by not preventing an event we have the legal obligation to forestall, we are made legally liable for its occurrence. The importance of reducing errors in the work place is therefore clear and considerable attention is being focused on Health Technology in healthcare information. The most popular types of tools, implemented for years in other EU countries and that only now are beginning to appear in the Italian healthcare scenario, are the Computerized Prescription Order Entry (CPOE), computerized prescriptions, accompanied by information systems, and clinical decision support (CDSS - Clinical Decision Support System), the gaming unit dose and automated deployment (cabinets and trolleys).

Objective: to reduce errors related to drug treatment cycles, from prescription to administration. Shared use of new technologies by all operators. Interaction between the various operating units of the hospital (ward-pharmacy).

Tools: analysis of a questionnaire on the staff's satisfaction index and needs (in processing the collected data to be discussed at the conference), the present review of literature, visits to hospitals in Rome where this system is used, together with specialized personnel of the manufacturing companies.

Conclusion: IT technology applied to the daily work of professionals is a safer way of working, and heightens risk containment and reduction of medication errors.

11.45 - 12.00

Taking charge of the patient in a perioperative interpersonal approach.

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Aim:

1. To enhance dialogue between the preoperative nurse and the patient, wherein the patient is no longer passive but participates in the preparations for the intervention.
2. To help patients cope with the intervention and post-operative period with the best personal resources.
3. To ease the recovery period of patients, as well as the complex work of nurses.

Surgery is a stressful event, and consideration should be given to the patient's doubts of regaining his independence and conditions prior to the operation and his fears related to the anesthetic and surgical procedures.

Such stressful situations call for effective communication between nurse and patient, that can lead to positive results for both sides, due to empathy, human warmth and a sense of understanding.

We also believe that better communication can help the nurse see what is best for the good of patients even when they are not able to clearly state their needs, fears and anxieties.

The nurse is the main figure who accompanies and guides the patient in the difficult process of treatment, using effective and professional communication rather than the instinctive and unsystematic methods.

The perioperative professionals play a central role in preparing the patient for surgery, because of their ability to understand the needs and their assessment skills are vital to the positive outcome of one of the most significant events in the patient's life.

Methods and Materials: the working group that was formed developed a tool, consisting of a nursing chart based on the minimum criteria established for the reception of patients to be operated on, and for the afternoon postoperative consultations and preoperative visits.

Results: the patients enlisted for surgery reported that they felt more relaxed and more tolerant to pain.

12.00 - 12.15**Analysis on the sleep quality of patients admitted to a polyvalent ICU.**

Marcella Luongo, A. Lucchini, R. Toppi, V. Doni, M. Mascheroni, M. Minotti, G. Pelucchi, ICU, S. Gerardo General Hospital of Monza, Milano-Bicocca University

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Introduction: sleep is a basic need of a person. The nurse must apply all the healthcare strategies to ensure adequate rest for the patient admitted to the ICU.

Objective: to assess the quality of sleep in a polyvalent ICU.

Methods: we conducted a study of 80 patients for a total of 134 nights analyzing and reporting the score given to the patient's quality of sleep.

Results: the guaranteed hours of darkness during the study were on average 7.7 (\pm 1.2) hours of darkness and 5.7 (\pm 2.3) hours of sleep quality sufficient for the patient. Regardless of diagnosis input, an average rating of 5.8 (\pm 1.9) hours was observed despite an average of awakenings totaling 5 (\pm 4.5) hours of which 3.5 (\pm 3.6) were spontaneous. The pathophysiological data of patients investigated, expressed an average posture of 35.9 (\pm 7.3) degrees, with stable hemodynamic values of systolic blood pressure of 125.1 (\pm 19.7) mm Hg and good pain control. A regular respiratory dynamics FiO_2 0.4 (\pm 0.1)%, Peep 7.9 (\pm 1.8) was evidenced and respiratory rate of 19.7 (\pm 5.3) breaths / minute.

Then the different ventilating strategies were compared to show that the sleep quality score of patients in Diving Bell was (6.5), compared to the PS mask (4.2).

Finally, drug sedation did not seem to affect the quantity and quality of sleep. The expenditure on drugs in reality was not effective in enhancing sleep quality.

The non-drug methods instead, (reading, watching movies, music therapy) produced a better result on patients (average 6.2).

Conclusions: a comfortable and organized environment (ensuring single rooms and/or in proximity with other patients with problems of low/average difficulties) was beneficial to the sleep quality of patients in intensive care.

12.15 - 12.30**"Open" ICUs: new technologies and humane aspects - our development, organizational, social-assistance project.**

Elena Busso, Silvia Moschini, Renzina De Vitis,

Annachiara Guiotto, Flaviano Rossi, Massimo Ruffinatti, Alessandra Strazzullo, ICU, Hospital of Rivoli, ASL TO3, Turin

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Introduction: the hospital's strategies are increasingly geared towards offering assistance that focuses all care on the patient and family members, considering the affective, emotional and rational aspects, linked to the effects of posttraumatic distress syndrome.

The evolution of the Intensive Care Unit over the last 30 years, has set the technological welfare aspect as a priority, allowing us today to emphasize its central role in the therapeutic process of personalized human support.

Materials and Methods: attention given to joint multi-disciplinary activities of medical-nursing personnel brought about a close collaboration with the Complex Structure (S.C.) of Psychology, by introducing a psychologist in the more open type of ICU where a family member is always present. In order to evaluate the effectiveness of the project, questionnaires were formulated and given to ICU staff and the patients' families.

Results: eighty-eight family members were interviewed and 98% said they received complete and adequate information. After the implementation of open visiting hours in the ICU, the family members showed greater appreciation. Twenty-three staff members were interviewed. The evaluation of the project was positive, 83% expressed satisfaction and more than 90% considered the experience worth applying to other situations.

Critical aspects: patients' privacy may have been compromised and organizational problems were linked to the handling of exit and entrances.

Among the interviewees, 73% thought visiting hours should not be extended.

In the first six months of activity, the psychologist took charge of 13 family members.

Conclusions: it was a positive experience but also pointed out some aspects, which need to be studied further and improved, to raise the satisfaction levels of patients/family members and the hospital staff.

Our next multidisciplinary challenges, some already underway, will possibly include the admission of school age minors with appropriate forms of support and the raising of awareness campaigns regarding the opening of the more ordinary wards.

Bibliography

- Baxter A. Posttraumatic Stress Disorder and the Intensive Care Unit Patient. Clinical Dimension July/August 2004.
- Donald M, Berwick, MD. Restricted Visiting Hours in ICUs, Time to Change. JAMA Vol. 292 n.6 August 11, 2004.

12.30 - 12.45**Visiting policies in the ICU: analysis on the unit workers, a year after the revision of visiting hours.**

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Introduction: since 2008, all our ICU staff have been working to modify the visiting hours. In November 2009, ICU visiting hours increased from one to six hours/day. At the same time also the rules for individual protection of relatives were changed.

Purpose: at the beginning of 2011 the unit's operators were submitted to an analysis to determine their adaptations to the new rules with the aim of further extending the visiting hours.

Process: this analysis (2011) was done through a questionnaire which was the same one the workers answered before the change of visiting hours during the preparatory phase of the project (2008).

Results: among 44 operators who completed the questionnaire, only 30 were available (9 doctors, 15 nurses, 6 OSS) due to workers' turnover.

Conclusions: the final analysis is still being processed. Temporary results indicate significant differences between the study of the 2009 and that of 2011, especially among the several types of operators. International bibliographical references will act as guidelines to improve the review of visiting policies in our ICU and to study the effects of these policies on workers of the IC unit.

References

- Giannini A, The "open" ICU: not just a question of time. *Minerva Anestesiol* 2010;76:89-90
- Giannini A, Miccinesi G, Leoncino S. Visiting policies in Italian intensive care units: a nationwide survey. *Intensive Care Medicine* 2008;34:1256-62
- Biancofiore G, Bindi ML, Romanelli AM, Urbani L, Mosca F, Filipponi F. Stress-inducing factors in ICUs: what liver transplant recipients experience and what caregivers perceive. *Liver Transpl* 2005;11:967-72

12.45 - 13.00 Discussion

17 November 2011 - Morning - Conference Room 5



Training and Research

Moderator: Maria Benetton

8.30 - 8.45

Contributions from the renowned IPASVI association of Rome to Nursing education and research (CECRI).

Gennaro Rocco, IRCCS IDI, Rome

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Introduction: in 2010, an important center for nursing education and research of the IPASVI of Rome was inaugurated. It was the only project of its kind in Italy and among the first in Europe, in line with positive experiences obtained in the United States. The center was modelled and based on four fundamentals: education, research, training for researchers and clinical practicum.

Goals: the main objective was to explore the possibilities of improving nursing research so as to improve assistance to citizens and boost the public's perception of the profession.

Materials and Methods: CECRI is made up of an executive committee; an international scientific committee made up of researchers from countries like Canada, the United States and England, a board of trustees made up of prominent persons like Prof. Elio Guzzanti and Prof. Giovanni Berlinguer, and a tight network of consultants made up of the:

- *Board of Nursing Professors;*
- *Board of Directors of the faculty of the two-year Specialization Course in Nursing Science;*
- *Interdisciplinary team;*
- *Thisi-Ilisi Project group;*
- *Nursing Research Fellows group;*
- *Staff of expert consultants;*
- *Clinical Nurse Leaders Committee;*
- *Professional associations and scientific nursing societies;*
- *Citizens' representatives;*
- *Private and public Hospitals, Universities, Healthcare Agencies.*

Results: the principal objective is to allow nurses to conduct clinical research studies. Some early studies proposed the following issues to launch the Research

Pole of the Centre of Excellence regarding:

- *Near miss;*
- *Organizational welfare;*
- *Self-care in patients with cardiac problems;*
- *The quality of life of families affected by stroke;*
- *Safety in the Emergency Depts.;*
- *Palliative care and pain therapy;*

Conclusions: CECRI's priority is to create a new category of nurses and laboratories for research. CECRI's activities regard the interdisciplinary clinical nursing practices that will train all nurses to work towards maintaining excellence in nursing care.

8.45 - 9.00

Observational, prospective cohort study for the assessment of patients' needs/care workload ratios in the Anaesthesiological and Cardiosurgical ICU.

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Introduction: technological innovations and the need to optimise human resources in health units have stressed the need to modify measures in intensive therapy by using tools to assess the needs of patients. The Care Complexity Index (CCI) rating scales may be an answer to this new healthcare requirement.

Materials and methods: a pilot, prospective cohort observational study carried out on adults hospitalized at the Anaesthesiology and Cardiosurgical Resuscitation Operating Unit of the S. Orsola-Malpighi Health Company of Bologna, enlisted consecutively and undergoing multiple re-assessment of care needs starting from their admission up to the moment of discharge from Intensive Care, by means of their CCI.

Results: the sample consisted of 100 patients observed for a period of 40 days. The CCI of hospitalized patients was assessed and compared with the Nine Equivalents of nursing Manpower use Score (NEMS), already used in the Operating Unit in question. The care needs of patients could be measured, expressed in minutes, and included the modifications that took place during the care services. Compared to the NEMS, the CCI gave a better estimate of care needs, with a delta of 165 minutes from the beginning of

care services, about 240 minutes to 12 hours and 324 minutes during their hospitalization and 324 upon discharge.

Conclusions: the use of the Care Complexity model has made it possible to specify the needs of nursing care and support staff, compared to the number of nurses and nursing aides employed.

References

- Endacott R. Staffing intensive care units: a consideration of the contemporary issue *Intensive and Critical Care Nursing* 1996; 12:193-199
- Mackinnon E, Clarke T, England K, Burr G, Fowler S, Fairservice L. Intensive Care Nursing Staff Review. (1998); Sydney, Australia: Central Sydney Area Health Service.
- Urso A, Colombo S, Votti R. Measuring the complexity of healthcare IPASVI 2007

9.00 - 9.15

ICU Delirium Assessment (intensive care delirium screening checklist) translation, cultural adaptation and validation.

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Background: delirium is a complex psychiatric syndrome characterized mainly by disorders of altered levels of consciousness, sensory perception, disruption of the sleep/wake cycle with changes in circadian rhythms, and fluctuating intensity throughout the day; delirium can be very stressful especially in critically ill patients, and may affect a great number of people, about 30% to 80% of patients hospitalized in the ICU. There could be an increase in the hospitalization period, assistance and mortality costs. The use of validation tools allow for the early identification of this pathology with the possibility to decrease its negative effects.

Methods: after receiving permission from the original authors to use the tool, we did the translation and adjustments of the cultural aspects of the Intensive Care Delirium Screening Checklist (ICDSC). The tool translated was subjected to evaluation by a group of nurses and practitioners. The next step was the validation tool's results matched with the delirium medical diagnosis.

Results: to assess the translation of the worksheet, a checklist was created wherein the doctors and nurses had to evaluate the comprehension, content, application time frames and user-friendliness. Every item had to be given a score between 1 (least comprehensible) and 6 (very comprehensible); the mean score of the items was very high, always greater than 5.

The repeatability study assessed the degree of agreement between the raters (inter-rater reliability) calculated with the Kappa Cohen index, always present (0.50).

Lastly, delirium assessment performed through the ICDSC screening checklist was compared to the diagnosis carried out by a doctor. The sensitivity of the Italian version of the tests was at 69%, whereas specificity resulted to be at 100%. There were no great changes among the different types of patients in terms of age, pathology or severity of the hospitalization.

Conclusions: this rating scale for the assessment of ICU delirium has proven to be easily comprehended by Italian-speaking staff and after a brief training on its use, is fast and user-friendly. The routine use of validation scales for delirium assessment can permit measures to avoid or keep in check the onset of pathology.

References

- Devlin JW, Fong JJ, Schumaker G, O'Connor H, Ruthazer R, Garpestad E Use of a validated delirium assessment tool improves the ability of physicians to identify delirium in medical intensive care unit patients *Crit Care Med* 2007;35(12):2721-2724
- Skrobik Y, Devlin JW. The intensive care delirium screening checklist has many potential benefits over the nursing delirium screening scale. *Crit Care Med*. 2010 Jul;38(7):1610-1
- Haugh R. Patient care: New standards of care urged to reduce incidences of delirium *Hosp Health Netw*. 2011 Jan;85(1):11

9.15 - 9.30

Study on the incidence of sternal wound infections in the cardiac surgery department of a main Hospital Enterprise in Northern Italy.

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Introduction: surgical wound infection is a serious complication that can occur after heart surgery: it affects the duration and costs of hospitalization and has negative effects on the patient's mobility and mortality.

Theoretical Framework: the data disclosed in publications, classifies surgery-induced infections in third place among other hospital-acquired infections. The incidence rate of infection from sternal wounds is between 0.7% to 0.9% and in 90% of the cases the microorganism responsible is the *Staphylococcus aureus*. The major risk factors have been identified. The onset of infections takes about 5 to 30 days (an

average of 18 days) for superficial wounds and up to 5 to 99 days (16 days on the average) for deeper wounds.

Objectives of the study:

The objectives of the study were:

1. To describe the incidence of sternal wound infections;
2. To verify the presence of the risk factors of such complications;
3. Experimental application of the principal risk index (Toronto Risk Index and SWIPS-R) to infected cases.

Materials and Methods: the study was carried out through a retrospective analysis of 566 medical records of adult patients, excluding heart transplant operations in the Gallucci Center of the Hospital of Padua, in 2009.

Results: sternal wound infections were diagnosed in 1.06% of surgical patients. Half of the infections were from superficial wounds and the other half from deeper wounds. Culture swabs from sternal wounds were positive for *Staphylococcus aureus*. The average time of the onset of infections was 13 days (16 for the superficial wounds and 9.5 for deeper wounds). For cases of infection, the length of stay in the cardiac surgery department was on average, 31 days, more than twice that of patients without infections. The results showed that from the bivariate analysis, the only factors that were statistically relevant (statistical significance for values of $p < 0.05$) were the duration of the surgery, whether or not a cardiopulmonary bypass was carried out and the length of confinement in the cardiac surgery department. The postoperative conditions of hypoperfusion ($p = 0.059$) and or blood/red blood cell transfusion ($p = 0.089$) were also close to this level.

Discussion: the occurrence of sternal wound infections is in line with the studies disclosed in several publications as regards incidence, principal microorganism responsible and the time of onset. In addition to the increased need for nursing care and additional procedures (surgical and otherwise), the complication of infection is associated with prolonged hospital confinement. To reduce the negative effects this phenomenon has on the level of care and welfare of the patient, nurses working in this field should target the prevention of these infections.

References

- Kohli M, Yuan L, Escobar M, David T, Gillis G, Comm B, et al. A Risk Index for Sternal Surgical Wound Infection after Cardiovascular Surgery. *Infect Control Hosp Epidemiol.* 2003; 24:17-25.
- Hussey LC, Leeper B, Hynan LS. Development of the Sternal Wound Infection Prediction Scale. *Heart Lung.* 1998; 27:326-36.

9.30 - 9.45

Healthcare savings - new proposals to resolve the old problem of premature termination of dialysis due to circuit clotting.

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Premises: in the critical area hemodialysis treatments are frequent, and in cases with high risk of bleeding, are performed without systemic anticoagulation.

Purpose: to assess the economic impact of hemodialysis in the critical care department of a large hospital, and quantify the resources absorbed by treatments interrupted prematurely due to blood clotting in the extracorporeal circuit.

Material and methods: dialyses in the critical care department of our hospital are performed with the SHF (Slow Hemofiltration) bedside method in intensive therapy areas. Anticoagulation is achieved using dialysis exchange fluid infusion, with or without systemic anticoagulants. Tests were performed in the period, 1/1/2011 - 30/6/2011.

Results: the 852 SHF of 117 patients placed in 10 areas was monitored. The effective duration average: 10 ± 2 (min. 2, max. 16 hours). Dehydration average for each session: 1633 ± 809 cc (min. 0, max. 3,500 cc), dilution medium: $68 \pm 7\%$ (min. 30, max. 80%). Anticoagulation low molecular weight heparin: 268 cases (35.3%), heparin sodium continues: 120 cases (15.8%), initial heparin sodium: 14 cases (1.8%), dermatan sulphate: 50 cases (6.6%).

In 307 cases (40.4%) there was no anticoagulant systemic treatment, and in 109 (14.4%) stopped prematurely after 8 ± 2 hours; in 91.7% of cases we tested interruption of the clotting of extracorporeal circuit.

The economic reimbursement foreseen for SHF is 297 Euros.

On the basis of this data, our hospital healthcare spending for six months of hemodialysis treatment in the critical area was 225,423 Euros.

13.2% of the expenditure (29,686 Euro) is absorbed by hemodialysis interrupted in advance due to clotting of the extracorporeal circuit. 35% of the episodes of bleeding occurred in patients with no anticoagulant therapy.

Conclusions: hemodialysis in the critical area is expensive, and can be optimized by reducing clotting episodes in the extracorporeal circuit. This could be obtained by the use of innovative sanitary tools such as filters with heparin-coated membranes or loco-regional anticoagulation with sodium citrate.

9.45 - 10.00**Manual vs. automatic cardiac massage: a literature review.**

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Introduction: the 2010 European Resuscitation Council (ERC) guidelines focused on the quality of cardiopulmonary resuscitation maneuvers, particularly on thoracic compressions, even more than the previous guidelines issued in 2005.

Indeed, the most recent studies underline a directly proportional relationship between the quality of cardiac massage and Return of Spontaneous Circulation (ROSC).

The same guidelines moreover, view automatic cardiac massage (A-CPR) as an alternative technique to manual compressions (M-CPR), highlighting at the same time how A-CPR is associated with an increase in survival rates in the short term and an improvement of hemodynamic status.

This literature review aimed to identify the most effective method between automatic and manual cardiac massage to be performed during cardiopulmonary resuscitation (CPR).

Methods and Materials: literature review using the following databases: Pubmed, Cochrane, Cinahl, Medline. Time frame taken into consideration: 1991-May 2011.

Keywords: Cardiac Arrest, Injury, CPR, Mechanical chest compression, Active compression-decompression, Mechanical devices, Prognosis, Cardiac output, Cerebral blood flow.

Objective: to evaluate the most effective external cardiac compression technique between automatic and manual thoracic compressions.

Actual efficacy was evaluated based on the following parameters:

- *quality of the compressions (cerebral perfusion and cardiac output);*
- *patient's injuries (ribs, stern, parenchymal organs);*
- *patient's outcome (ROSC, hospitalization, discharge).*

Results: five articles considered of good quality and inherent to the discussed topic were taken into consideration. In particular, the articles reviewed were: one (Cochrane) review, two prospective studies of 85 and 149 cases, one descriptive study of 328 cases and one experimental study.

Literature analysis shows that there are no substantial differences between the two thoracic compression methods in terms of cerebral perfusion and cardiac output.

Also there are no obvious differences regarding patient's injuries and outcomes.

Though there are no obvious benefits in terms of efficacy of the automatic thoracic compression system, it is clearly evident how this device allows a more linear approach to the patient with cardiocirculatory arrest, releasing one operator from the duty of performing laborious maneuvers, so implying the removal of personnel from the clinical management of the patient.

The results of two important ongoing studies will be necessary to be able to more precisely judge the actual efficacy of automatic thoracic compressions compared to manual thoracic compressions.

10.00 - 10.15**Implementation of care bundles for the prevention of ventilator-associated pneumonia in intensive care: a pragmatic randomized cluster trial.**

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Introduction: despite advances in antibiotic therapy and dissemination of prevention strategies, ventilation-associated pneumonia (VAP, ventilator-associated pneumonia) is now a major cause of morbidity, mortality, prolonged hospitalization and significant increase of costs of hospitalization and intensive care (ICU). Many initiatives to reduce the incidence of VAP were based primarily on the promotion of bundles of interventions (a set of a few, simple, targeted procedures or practices, which have proven or allegedly given evidence of effectiveness when applied simultaneously rather than individually) in a collaborative network approach.

Objectives: the objective of this study was to assess the effectiveness of a knowledge-dissemination campaign and the implementation of activities to increase the adoption rates of the care bundles for the prevention of VAP, entailing five procedures:

- a. *Continuous suction of subglottic secretions*
- b. *Use of chlorhexidine oral care,*
- c. *Pan head position between 30° and 45°, if not contraindicated*
- d. *protocols for sedation and weaning acceleration,*
- e. *bronchial aspiration with closed circuit.*

10.15 - 10.30 Discussion

Coffee Break

Healthcare Technologies

Moderator: Luca Peressoni, Marco Marseglia

10.45 - 11.00

Risks of using a syringe infusion system (syringe pumps).

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Introduction: the modern syringe infusion systems accept consumables from different suppliers. The possibility of using syringes is possible, thanks to the original non-recognition systems of automated infusion pumps. If the product is not encrypted or if there is an incorrect setting of the syringe, the patient is exposed to a dose of the drug infused incorrectly.

Objective: to evaluate the actual dose in the syringe pump with the use of a syringe with erroneous captions.

Materials and methods: the tests were performed considering two types of syringes, Fresenius Injectomat® and Braun Perfusion® combined with a infusion pump. Fresenius injectomat, on which the actual time of infusion was experimentally measured.

Results: from the tests conducted it was observed that in 83.4% of the infusion test, there was a discrepancy between the volume set and the volume actually infused. Of this group, 60% had resulted in an increase of 10% of the volume infused, and 40% with an increase of 20%.

Conclusions: the error rates are such that a mismatch emerged between the syringe and infusion pump that signified a daily and unrecognized high risk of incorrect drug administration. The use of non-original syringes, while providing cost savings may expose the patient to incorrect doses of medication. The cost-effectiveness of these options must be properly verified, without considering only the economic aspect.

11.00 - 11.15

Regional citrate anticoagulation during continuous hemofiltration. Careful management by nurses to cope with the lack of alternative technologies.

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Background: regional anticoagulation with citrate is an effective technique of anticoagulation during CVVH (continuous venovenous hemofiltration) in

patients with the risk of bleeding or contraindications to the use of heparin¹. However, considering the possible metabolic implications (hyponatremia, alkalosis and hypocalcemia), the method is considered difficult to apply.

Purposes: to use selective anticoagulation with citrate during CVVH by using market-available materials. Materials and methods

In the ICU of the University- Hospital of Siena, patients with acute renal failure at risk of bleeding: patients who had undergone major surgery in the previous 24 hours or with active bleeding or major bleeding in the last 48 hours, APTT > 60s or platelets < 60x10³/mm³, 2, were treated with CVVH and citrate. A standard procedure for CRRT apparatus was used. For the infusion of citrate a standard infusion pump connected to the hemofiltration circuit was used. The chelated calcium citrate was reinstated by infusing calcium gluconate outside the circuit.

Results and conclusions: a total of five patients with the criteria described above were treated. The average life of the filter was 27.1 ± 18.1 hours. The average values of calcium were maintained in the desired ranges and the majority of nursing treatments were concentrated in the first 12 hours.

In conclusion, despite the small number of patients treated, it can be asserted that a strict application of our protocol and the nurses' close monitoring have allowed an adequate anticoagulation during CVVH circuit in patients at risk of bleeding. This protocol is easy to apply because it entails the use of materials which are commonly found in intensive care or hospitals.

References

- Palsson R, Niles JL. Regional citrate anticoagulation in continuous venovenous hemofiltration in critically ill patients with a high risk of bleeding. *Kidney Int* 1999; 55: 1991-7.
- Tan HK, Baldwin I, Bellomo R. Continuous venovenous hemofiltration without anticoagulation in high-risk patients. *Intensive Care Med* 2000; 26: 1652-7

11.15 - 11.30

Devices for fecal incontinence of heart surgery patients: clinical and economical aspects. An experiential comparison.

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Introduction: the management of acute fecal incontinence (AFI) is assuming an increasingly important role in clinical and nursing care of critical patients. Among the main problems are: the maintenance of enteral nutrition regimen, prevention and control of pressure ulcers, increased risk of mobilization of patients with extra-corporeal devices, and increased nursing workloads. These problems, when not properly handled may worsen patient outcomes and weigh on the healthcare budget.

Aims: to present the experience of two ICUs (Turin and Cuneo) on the management of acute fecal incontinence in critical patients through the use of long-term fecal catheters (Flexiseal®).

Materials and methods

An observation and perspective study of 60 patients (30 Turin, 30 Cuneo) at the heart surgery ICUs (January 2010-June 2011).

Results: Turin: 47% of the patients bore devices (ECMO, VAD, Impella®), with a frequency of diarrheal discharge of 2.2 discharges/shift. 43% of patients had pressure ulcers, 77% were at risk, according to the Braden Scale with mean values of 1.5 ± 1.4 which improved in 50% of the patients and did not worsen in any case. The assistance timeframe for the handling of the AFI before the insertion of the catheter was 2.59 ± 1.21 hours. In 10% of the cases there were slight rectal bleeding incidents due to the anal ulcers. Savings amounted to 26,900 Euros on total costs and 1,980 hours on workloads due to AFI handling.

Cuneo: the device facilitated maintenance of the regimen from the 4th day of the E.N. and reduced recourse to total parenteral nutrition.

Conclusions: The use of Flexiseal® results in:

1. *improvement and/or maintenance of cutaneous integrity*
2. *reduction of time and costs in nursing care*
3. *an adequate nutritional therapy.*

11.30 - 11.45

Ultrasound nursing: state-of-the-art ultrasound devices applied to nursing procedures.

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Critical care assistance is characterized by an important and increasing use of modern technological equipment: in recent years the ultrasound (U/S) has become a useful and effective tool and actually is recommended by various international guidelines to assist in the execution of invasive procedures.

The US technique, thanks to advantages such as speed, low cost and non-invasiveness, can be a

valuable support to a great number of nursing activities.

The aim of this report is to describe the application of the U/S to nursing procedures, with particular reference to emergency and critical care settings, and reviewing national and international experiences.

In certain situations the use of U/S may be resolute, allowing the nurse to "see" beyond the barrier represented by the skin and ensuring the best results during the execution of procedures.

U/S guided vascular cannulation, particularly in patients with difficult venous access, achieves a high percentage of successful cannulation, a small percentage of complications and fewer attempts with clear benefits for patients. U/S techniques also allow the accurate checking of the position of medical devices such as urinary catheters and gastric tubes.

Nurses may find more applications of U/S while performing in-hospital or out-of-hospital resuscitation maneuvers or during triage activity in the emergency department (ED), based on specific clinical pathways and protocols.

Ultrasonography is a good example of high technology with a low economic impact that can be used by nurses during routine procedures or in difficult situations, ensuring greater effectiveness in the techniques, fewer attempts and complications and greater patient safety.

References

- National Institute for Clinical Excellence, Technology Appraisal Mo 49. Guidance on the use of ultrasound locating devices for placing central venous catheters, http://www.nice.org.uk/nicemedia/pdf/Ultrasound_49_GUIDANCE.pdf (accessed June 14, 2011)
- Walker E. Piloting a nurse-led ultrasound cannulation scheme. *Br J Nurs.* 2009 Jul 23-Aug 12;18(14):854, 856, 858-9

11.45 - 12.00

Intracavitary ECG method for PICC positioning and tip location control: results of a preliminary study.

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Introduction: it is very important to check the correct positioning of the tip of the central venous catheter since malpositioning will expose the patient to a high risk of venous thrombosis, malfunctioning, vein erosion and other complications.

Aims: to assess the feasibility, safety and accuracy of the ECG method in real time positioning of the tip of the PICC type of central venous catheter.

Materials and Methods: the ECG method makes use

of a catheter connected to a commutator where the intracavity electrode is the liquid column of physiological solution contained in the catheter. The method is based on the principle that upon inserting the catheter along the upper vena cava towards the right atrium, one could observe the foreseeable variations in the maximal of the P wave that reflect the nearness of the intracavity electrode (the tip of the catheter) to the cavo-atrial junction.

A total of 36 PICC central venous catheters were inserted in UTIC in adult patients. Those excluded were patients with invisible P wave according to ECG base standards. The objective was to position the PICC tip at the cavo-atrial junction through the ECG method. The final position was checked through a post-procedural X-ray of the chest.

Results: the method was feasible in 34 patients. There were no complications potentially correlated to the method itself. At the final x-ray check, 30 catheters were positioned within 1-2 cm from the set target, in the two catheters which failed to evidence morphological variation of the P wave, the catheter resulted to be malpositioned.

Conclusions: to conclude, the ECG method resulted to be clearly beneficial in terms of accuracy, cost-effectiveness and feasibility in conditions where x-ray control may be difficult or costly to achieve. Intra-procedural control of the tip will avoid costs implied in repositioning the catheter at times necessary after chest x-rays and will prevent repeated radiological exposure.

The method is simple, easy to learn and teach, non-invasive, easy to reproduce, and safe for both operator and patient.

Bibliography

- Pittiruti M, LaGreca A, Scoppettuolo G. The electrocardiographic method for positioning the tip of central venous catheters. Submitted to JVA
- Moureau N, Dennis GL, Ames E and Severe R. Electrocardiogram (EKG) Guided
- Peripherally Inserted Central Catheter Placement and Tip Position: Results of a Trial to Replace Radiological Confirmation. JAVA, 2010, 15 (1) : 9-15
- Gebhard RE, Szmuk P, Pivalizza EG, Melnikov V, Vogt C, Warters RD. The accuracy of electrocardiogram-controlled central line placement. *Anesth Analg*. 2007 Jan;104(1):65-70

12.00 - 12.15

Digital_IT meaning nursing reloaded: state of the art and perspectives of digitalization in the nursing profession.

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Introduction: in information society, information and communication technologies [ICT] favor productivity and e-democracy. The obvious consequence is the evolution of healthcare and the Public Administration. E-health, in fact, is not only "a technical development, but also a state-of-mind, a way of thinking, an attitude (...) to improve healthcare (...) by using information and communication technology".

"The real challenge which accompanies the revolution of electronic healthcare, is above all, cultural: to gain the benefits of ICT, healthcare professionals have to espouse a new philosophy". Health information technologies [HIT] are the tools for patient empowerment, and favor the sharing and transparency of information and therefore, also of care continuity and risk management. Furthermore, they operate on standards that have revealed to be the effective gauges of quality.

For some time now in the USA, the Nursing Informatics field has been investigating the prospects for the use of the database not only as the foundation for information systems, but also, and above all, as a support in decision making, especially in view of knowledge discovery. Future nurses will use the computer without suffering from depersonalization related to the bureaucratic aspect which is today attributed to the keyboard.

Also in the microcosm of healthcare, the digital divide depends on elements such as literacy (informatics), age, gender, etc. Whoever is not familiar with the tool, rejects it. But computers are not totems, rather they are stupid since they can give answers without being able to set problems. However, "once programmed and running, they behave in a perfectly honest way." It is the user's expertise which determines the technological value..

Aims: to investigate the level of digital innovation, state of the reception of e-government plans, cultural approval and resistance of the nursing population working in therapy sectors, and sub-intensive care, starting with the healthcare sector of Livorno.

Material: bibliostitography; questionnaires/interviews, spreadsheets

Method: descriptions and reports

Results: the target's digital innovation rates and the potential margins for personal and structural progress were assessed.

Conclusions: a project must be laid out for the sharing of knowledge and as an awareness campaign.

Bibliography

- "What is e-health?" Eysenbach Gunther, J Med Internet Res 2001;3(2):e20 <http://www.jmir.org/2001/2/e20/> last accessed on 12/6/2011
- Buccoliero L. E-health 2.0 Technologies for patient empowerment. *Digital world*; 4: 2010; 3:17
- Asimov I. Times have changed. Mondadori, Milan, 1984

12.15 - 12.30**Nursing and Health Technology Assessment: a dual endeavor?**

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Introduction: the healthcare systems of both the rich and the developing countries, are discussing three fundamental issues: the socio-demographic changes (connected to demographic, epidemiological and healthcare transitions), the great expectations of consumers, and the constant offer of new technologies. These factors produce a constant increase in demand, which in areas with limited resources is a serious problem affecting the entire system's sustainability. Health Technology Assessment - "the complex and systematic multi-disciplinary assessment of healthcare, economic, social and ethical consequences provoked directly or indirectly in the short and long-term by existing healthcare technologies and those newly introduced" (Charter of Trent) - was created specifically with the objective of giving scientific support to healthcare decision-making processes.

Aims: the aim of this work was to briefly present Healthcare Technologies Assessment (HTA) and explore the possible application of such an approach to the nursing field.

Materials and methods: through research in the PubMed, CINAHAL and HTA databases, we analyzed the latest works on the evaluation of healthcare technologies in the nursing profession.

Results: despite the fact that international literature presents numerous examples of assessments of the practical efficacy of nursing interventions, there are basically very few examples of research based entirely on the HTA process.

Conclusions: nursing has advanced greatly over the last years and is trying to develop its own taxonomy regarding nursing diagnosis, results and interventions. Standardization of the nursing language surely facilitates research work on the assessment of the impact of nursing in the various fields of action. The HTA multi-disciplinary approach will surely facilitate the contribution of nurses in the healthcare technology assessment teams.

Bibliography

- Ricciardi W, La Torre G. Health Technology Assessment. SEEd. 2010, Turin
- Cicchetto A, Marchetti M. Manual of Health Technology Assessment. Il Pensiero Scientifico Editors, 2010, Rome

12.30 - 12.45**A telepresence system to support the home-hospitals supervised by healthcare operators: considerations and opportunities.**

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Angelo Barbato, Healthcare Management Dept. LHU of Rome A

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Introduction: more and more of the population is at risk of losing its self-sufficiency due to the simultaneous onset of chronic pathologies. This demographic-epidemiologic emergency increases the need for a network of services such as domotic technologies, telemedicine for assistance, support and safety of fragile elderly and home caregivers. Telepresence systems are means for distance communications, through a system of local interfaces and remote devices (computers, satellite networks, remote systems and mobile robotic platforms). The combination of these technologies ensures the virtual presence of the operator who gives the user the impression of his real presence.

One of the benefits of telepresence as an auxiliary aid is that it can offer continual monitoring possibilities by healthcare staff. The use of these systems to improve the quality of life, is a relatively new alternative but not an absolute one. Many countries have started up the experimentation on models for social interaction and monitoring to promote the person's maximum independence. In the field of research on telepresence, also the LHU of Rome A is a European partner of a project launched in Sweden also with the participation of Spain, Portugal, England, Slovenia and Italy.

Aim: the study will assess the possible uses and applications of a robotic telepresence platform called Giraff (www.giraff.org) by healthcare operators in different specialized areas.

Materials and methods: the research will see to the enlisting of healthcare operators who will be instructed on the functions of the Giraff system, with the aim of monitoring in real time the pathology and activities of the user at home. Subsequent to the tutorial, a focus group study was conducted and called, "The use of Giraff in the field of healthcare." The participants filled in a questionnaire, giving indications on the possible applications of the Giraff, benefits and pitfalls of the system, and profile of the

most suitable patient who could benefit from the use of telepresence.

Expected results: the research is still ongoing, but a first analysis of data shows that 65% of the participants are willing to use the Giraff to train caregivers on small nursing tasks and constantly keep in touch with them. The possibility of home monitoring is considered among the most useful applications (45%). Among the benefits highlighted is the mobility of the platform which gives greater control of the surroundings of the patient's environment. The dimensions, particularly of the robot base, is one of the bigger disadvantages reported. The type of patient who could most benefit from the presence of the Giraff is the elderly and/or disabled, partially self-sufficient person and who is mentally fit.

Conclusions: the research focuses on examining the operators' impressions on the usefulness and efficacy of telepresence as an auxiliary tool to home care and the contribution the Giraff robotic platform could give to the healthcare operator. The first data reveals a positive attitude to the use of Giraff in the healthcare ambience. Generally, telepresence may help the users, operators, and family members to optimize homecare. However its application reveals social and healthcare implications which have to be integrated. Moreover, the development of technology offers also other uses, the effectiveness and costs of which are currently being studied starting from this particular experiment on the Giraff system..

12.45 - 13.00 Discussion

13:00 - 14.00 Lunch Break



17 November 2011 - Morning - Conference Room 6



Pediatrics 1

Moderator:
Carmelina Stabile, Antonella D'Errico

8.30 - 8.45

Nurses' Training Experience on the "Management of pediatric patients with congenital heart disease in the Postoperative Care Unit (PICU)".

Barbara Fonda, Fabiano Cassetta, M. Maritan, G. Pontoglio, M. A. Padalino, Cardiac Surgery ICU, Pediatric Heart Surgery, Hospital of Padua

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The training course for nurses and perfusionists entitled "Management of congenital heart disease in the pediatric postoperative care unit (PICU)" ended with a new focus on the importance of interpersonal skills and know-how of nurses working daily in this unit, and highlighted work-sharing and coordination of the team as a key point for the management of paediatric cardiac surgery.

Educational Objectives of the course:

1. to describe the anatomy and physiology of pediatric cardiac patients;
2. to analyse major congenital heart diseases of pediatric patients;
3. to identify nursing care modalities; and
4. to find solutions for the management of critical care situations.

As educational methods, we used case presentations and clinical discussions for large groups of students with standards and expertise handled by a teacher. Didactical material consisted in paper copies of the presentation slides, together with a printed copy of the "Handbook of nursing care in a pediatric post-operative cardiac surgery unit."

Results:

1. standardization and updating of knowledge, facilitating information exchange and communication between teams;
2. multidisciplinary interaction for the drafting of the "Handbook" which leads to improvement of global support for the young patient;
3. multi-professional involvement in the course.

8.45 - 9.00

Assessment of satisfaction ratings, didactic efficacy and impact of the training course in "Management of

pediatric patients with congenital heart disease in the postoperative ICU".

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Introduction: the Training Course in "Management of patients with congenital heart disease in postoperative intensive care unit" was held at the Pediatric Cardiac Surgery ICU in Padua between 2009 and 2010.

The course was organized in five editions, for nursing and perfusionist personnel, involving five different medical and surgical units in the teaching and learning.

In September 2010, we reported our experience and the results were evaluated at a roundtable, "New methods and approaches in teaching and evaluation of staff performance," organized by our Hospital Administration.

Objectives:

1. to assess the achievement of predefined targets of training as long-term knowledge;
2. to assess the effect of training in modifying the clinical practice;
3. to compare these results in order to plan future didactic events.

Materials and methods: we applied our knowledge to the assessment, objectives, tools and methods thereof.

We acquired the satisfaction and learning ratings through anonymous questionnaires distributed to students at the end of all five editions.

The impact ratings were acquired by means of a test at the end of Courses, a questionnaire on clinical practice, and an evaluation grid to assess the course dropouts during everyday clinical practice in the ICU.

These grids were filled in by observers who had been recruited and instructed for this purpose.

The most important result was the discussion and sharing of healthcare problems which were common in all involved Units and led to the formulation of the Pediatric ICU guidelines handbook. Finally, the satisfaction and learning scores revealed to be interesting, especially when associated to the evaluation of performance indicators.

Conclusions:

1. *Training of personnel plays a key role in producing, developing and updating professional knowledge in healthcare specialists. For this reason, we believe the course has the capabilities of developing: specific clinical knowledge, technical skills, and communication skills.*
2. *The importance of human resources (knowledge, expertise and experience) is growing;*
3. *It is important to assess the effectiveness of didactic and training events so as to justify their creation and further investments.*

9.00 - 9.15**Training Project for enhancement of advanced skills of Nurses in the pediatric ICU.**

Adriana Micali, Debora Cesar, Fulvia Caenazzo, Roberta Boschetti, Beatrice Anselmi, Loredana Dittura, Paediatric ICU, Paediatric Hospital "Burlo Garofolo". Trieste

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Introduction: general nurses and/or new employees in our Institute have long felt the need to expand and improve their skills in pediatric intensive care. The same demands were also expressed by colleagues in the area, who have to take charge of children with disabilities and chronic degenerative diseases, treated in and discharged from our Institute. All this, in the absence of an improvement project, leads to high use of resources with increased healthcare costs and longer hospitalization with the risk of poor quality of care.

The areas of study are not exactly the same for the two types of professionals, who work in different contexts, even though most of the skills required are similar. Colleagues in the intensive care unit, have gained expertise and specific knowledge especially regarding patients with disabilities and debilitating diseases, and have thus become "experts" able to transmit the skills and abilities acquired within the actual work context.

They have been asked to contribute by sharing their knowledge in various situations, and concrete efforts are being taken to organize this process so that their experience may be fruitful for all.

Aim: the aim is to create a training program which ensures the acquisition of advanced and practical skills that meet the care needs of specific types of patients in our territory, enhancing better quality of care and cost-effectiveness.

Methods: the training process entails meeting with the tutor for the analysis and discussion of the protocol related to EBN and practical skills. These are identified in the training project and those required by the

individual participants, according to their needs.

The following 36 hours of training are provided at the patient's bedside, along with the discussion of clinical cases specific to the tutor. The correctness of the procedures performed are evaluated in ongoing exchange of ideas, and supported by an appropriate check list, whereas at the end of the training a general report is given on the achievement of objectives targeted.

Expected results:

1. *Consolidation or acquisition of new communication skills, and clinical, practical skills by the participant.*
2. *Identification of problems encountered along the training path.*
3. *Improved performance and cost-effectiveness.*
4. *Reduced number of infections and complications caused by poor training on the use of devices, management of medication, tracheotomy, noninvasive ventilation, etc.*
5. *Decrease in the rate of repeated hospitalizations linked to poor management of the child in the critical and rehabilitation phases.*

The project includes an analysis of the results achieved at the end of 2011.

References

- Farmer EA, Page G. A practical guide to assessing clinical decision-making skills using the key features approach. *Medical education* 2005; 39:1188
- Benner P. Nurses' excellence in clinical practice. *Experiential-based learning*. McGraw Hill Milano 2006

9.15 - 9.30**"Pediatric BLS MASS TRAINING": an economic-organizational assessment of a credible and sustainable option for the basic pediatric BLS training and refresher- training processes.**

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Introduction: the IRC Trentino Paediatric BLS teachers' team was involved for a year, in a randomized and supervised Healthcare Oriented Research Project launched by the Association "Salute e Pol. Soc." (PAT announcement 2009) in order to compare the traditional pediatric BLS training to that intended for the general population (mass training). The measurable performance outcomes were evaluated (the teachers assessed the results through a structured grid with IRC and key performance indicators for ventilation and pediatric resuscitation conducted with the electronically equipped Resusci Junior dummy) at the end of the

courses (skill performance) and after a six-month period (skill retention).

Aim: to conduct a comparison of the cost-effectiveness between the two paediatric BLS approaches used during the project.

Methods and Material: a retrospective cost analysis on the sessions carried out during the project time.

Conclusions: as far as BLS mass training is concerned, some interesting opportunities in terms of time and cost reduction have emerged if compared with the traditional BLS: according to the concept of economies of scale, a greater number of students can be trained with less effort in terms of numbers of teachers and time.

It can be proven that the additional fixed costs for purchasing "mini-Anne" (a type of dummy) with which students can train themselves both within and outside the classroom, can be written off in follow-up refresher-training courses.

During the retraining phase, the BLS mass-training approach seemed to provide tangible advantages when compared to the traditional training systems due to the larger number of students who can be involved in the training process (each of them with a dummy), and less teachers employed, and furthermore, because it is time-saving.

The evaluation based on skill retention brought to light how the responsibility for the revision of knowledge and abilities acquired can be entrusted to students (each with his mini-Anne). This led to the consideration of the evaluation process as a time when feedback can reveal students' doubts.

References

- López-Herce J. et al. Characteristics and outcome of cardiorespiratory arrest in children. *Resuscitation* 2004; 63:311-320

9.30 - 9.45

Nidcap: Newborn Individualized Developmental Care and Assessment Program. Experience in the NICU of "Umberto I" General Hospital.

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Introduction: the NIDCAP is an individualized assessment and care program for the development of newborns. It was developed by the American psychologist, Heidelise Als in the 1980s, but has only recently been introduced in Italy. It is an innovative model of care for premature babies and their families within a NICU and is based on the concept that it is not only

important to ensure their survival, but to also support and promote their healthy development and encourage parent-child relationships. For this reason the NIDCAP aims to provide individualized and appropriate care, adapting the physical and social environment to the household. Some studies have found that children assisted by the NIDCAP method, greatly benefitted in both the short/long term, consequently reducing the hospitalization period and costs.

Objectives: to determine if and to what extent the nursing staff is familiar with NIDCAP, their views on different aspects of this method and the possibility of their introducing it to their ward.

Material and methods: a questionnaire with 16 multiple choice questions was administered to 25 components of the NICU nursing staff of Umberto I General Hospital in Rome.

Results: the questions were answered by 80% of the nurses. Among these, 60% said they did not know the NIDCAP method and 80% admitted that the constant presence of parents in the ward would affect their work. Finally, there was a significant difference between those who expressed their willingness to introduce the NIDCAP as a working method (75%) and those who considered it possible (50%).

Conclusions: the members of the nursing staff of this unit are still not familiar with the NIDCAP and some aspects of its methods such as the constant presence of parents, are not seen in a totally positive way. At present the application of NIDCAP in this unit would face several obstacles.

9.45 - 10.00

Improved outcome in paediatric patients and its economic impact: a tool for early recognition of the patient's deterioration.

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Over the last few years the global healthcare system has increasingly focused on finding adequate management of clinical Intra-Hospital Emergencies. This is why a new tool has been introduced following the RRS (Rapid Response System) for the detection of clinical worsening of patients, which, in the Italian clinical settings still has not been introduced in Pediatric departments.

Episodes of CCA (Cardio Circulatory Arrest) in children are not as frequent as for the adult patients although the data shows a much higher mortality rate. In the paediatric patient some factors such as the rapidity of clinical deterioration, nonspecific symptoms, and the parents' presence, may increase the difficulty

in managing critical events, and this, at times may delay the recognition of clinical deterioration.

On the other hand, the peculiarity of paediatric patients is such that CCA is usually secondary to other conditions and the clinical pathway is directly proportional to the response of treatments.

Applying adequate preventive strategies will help the health operator to promptly recognize the clinical deterioration of a paediatric patient.

For this purpose, the paediatric department of OIRM-St Anna's Hospital in Turin, is carrying out a study which has introduced the PEWS (Paediatric Early Warning Score), a tool that will help the healthcare provider in evaluating the paediatric patient rapidly and according to a proper criteria, in order to promptly detect the patient's clinical deterioration.

In today's reality where the Healthcare System is trying to focus on the best outcome for the patient, it is fundamental to consider the centrality of the patient in relation to the critical event, strictly in relation to a clear perspective of the human and economic resources available.

The system adopted during this pilot study could be a concrete tool for the prevention of cardiac arrest in pediatric patients and reduce unnecessary admissions and the length of hospital stays in our Intensive Care unit, with a very positive impact on the economy.

Synthesis of the first results:

∑ total sample of patients, 1,507

- single surveys completed: 23,740
- survey with score PEWS 0 - 94%
- survey with score PEWS < 0 - 6%
- Measurement standard PEWS ≥ 3 - 38%
- Enlisted ward: Short Intensive Observation (Reception Ward); Emergency paediatric ward, Onco-Hematology, Cardiology, Cardiac surgery.

10.00 - 10.15

Data report on paediatric patients in the Emergency Department: workloads and clinical assistance procedures, from triage to the final outcome.

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Forward: in the A&E department, 15% of first aid activities deal with paediatric patients. Paediatricians of the Nottola Hospital often complain about the lack of appropriate consultation stations and the big number of patients admitted to triage.

Purpose: to gather data related to the paediatric admissions and determine specific and appropriate procedures according to the causes of admission and assigning of triage color codes.

Materials and Methods: the study was conducted in a 1st level general A&E Department with about 29,000 admissions per year. The triage which was based on the GTT system, and on five color codes, contained a section on paediatric triage adapted by the Meyer Paediatric Hospital, that did not include a sky-blue code as in the GTT system. Of the 25 nurses assigned, 20 were also qualified for paediatric triage. The observation period covered the entire 2010. The following data was gathered: paediatric admissions according to color codes, admission flows for each day of the week and their results - whether the patient was discharged or admitted.

Results And Conclusions: analysis of the said data shows that 64% of the patients admitted in the emergency department did not need any pediatric consultation; this contradicts the pediatricians' claim that they are being called without preliminary screening. The data gathered allowed the elaboration of a joint ER/Pediatrics ad hoc procedure for children in the following cases: head injury, fever and abdominal pain. The study foresees the review of data accessed in 2011 to verify if the procedures implemented were the most suitable with regard to consultancy and limited Wait Times.

10.15-10.30 Discussion

Coffee Break

Pediatrics 2

Moderator: Carmelina Stabile

10.45 - 11.00

The role of case managers in the diagnostic, therapeutic pathways for pediatric patients affected by Traumatic Brain Injury (TBI).

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The National Epidemiology (Ministry of Health) and International (Pediatrics, Nov. 2008 "Trends in pediatric hospitalizations associated with TBI, Bowman SM") announced that TBI is one of the most common causes of admission to the emergency department and subsequent hospitalization. It furthermore underlined that TBI occurring in children is more often mild than severe.

While not causing problems in healthcare from a clinical point of view, given that prognosis is generally propitious, TBI in children however, is one of the most critical organizational points of the emergency room, as there are no common guidelines and the current approach is mainly left to chance.

Based on the organizational model of case management, we would propose a TBI Diagnostics, Clinical and Therapeutic pathway (PBIP - Pediatric Brain Injury Program) for children, to be prepared by a Certified Case Manager Nurse (CCM) of the critical area, and shared with other professionals.

A survey carried out on medical records regarding the admission of children to the ED due to TBI, in a Roman level 1 A&E Unit, was able to highlight some initial problems.

Starting from the problems found, and through review of scientific evidence, PBIP was drafted, specified in the form of an algorithm, which highlights the stages in which assistance must be channeled to a pediatric patient suffering from a slight TBI, from the moment of admission to the E.D., until discharge.

In addition, to protect the patient and family also after discharge in view of observation at home, the course provides for the delivery of a brochure to the caregiver and the proposed implementation of a nurses' call-center active 24 hours.

In conclusion, the paper retains that the implementation of a PBIP relating to pediatric TBI in the E.D., may be effective both from a clinical and managerial point of view as it enables standardization of care, and

ensures continuous protection of the patient, also from an economic standpoint, as it promotes the proper allocation of resources, thus optimizing costs, and avoiding duplication of care provided.

11.00 - 11.15

Observational Study on Nurses' knowledge of massage for the newborn and premature infants.

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Introduction: baby massage comes from an ancient Eastern tradition, which has been rediscovered and is spreading throughout the Western world. Beneficial effects of baby massage on young patients are: improved mother-infant interaction, decreased pain, promotion of the development of neurological, cardio circulatory, respiratory, muscular, immune and gastrointestinal systems, increased body weight and a shorter hospitalization. Nevertheless, this technique is still little known and rarely applied by nurses.

Objectives: to evaluate the knowledge of baby massage among nurses working in intensive care units and pediatric departments in several Italian care-centers.

Tools: a questionnaire was submitted to nurses working at the neonatal intensive care unit and pediatric department of the Mazzoni Hospital in Ascoli Piceno, Umberto I Hospital in Rome, and Madonna del Soccorso Hospital in San Benedetto del Tronto.

Conclusion: this investigation showed that more often, young nurses are more aware of the benefits of baby massage than older nurses. Location of the clinical setting did not significantly influence this aspect even if more than 90% of nurses in Ascoli Piceno are informed of this technique. Such a result is certainly related to the lessons organized for parents, which take place in this hospital after the newborn's discharge.

11.15 - 11.30

The problem of infections related to catheters and infusion therapy in newborns in intensive care.

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Introduction: the remarkable number and gravity of infectious and septic diseases occurring in Neonatology, clearly point to the fact that even in developed countries, infections are the main obstacles to the viability of premature infants.

Preterm infants are special patients with physiological immune deficiency related to prematurity and this makes them particularly vulnerable to infections. This high-risk condition tends to fade and disappear in the passing weeks in which, due to extreme prematurity, they require intensive and "aggressive" treatments like those applied in NICUs (Neonatal Intensive Care Unit). One of the main "moments of care" at higher risk of infection is the placement, maintenance and management of venous access catheters.

Aim: to identify the best practices within neonatology and infectiology departments and achieve excellence in the management of infusion insertion paths.

Materials and Methods: literature review; keywords: catheter, venous, Infections, newborns.

Results and Conclusions: the analysis of literature highlighted how correct management of the infusion, sterile preparation of the therapies and the use of devices such as three-way taps, needleless connectors, antibacterial filters etc., combined with scrupulous care and collaboration of medical and nursing staff, significantly reduce the onset of catheter-related infections with a consequent reduction of patients' morbidity and mortality.

11.30 - 11.45

The use of "2-octyl cyanoacrylate" as skin adhesives in pediatric cardiac surgery: a cost-effective solution.

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Objective: several studies of various surgical disciplines have featured the use of "2-octyl-cyanoacrylate" as a skin adhesive, but do not encompass the field of pediatric heart surgery. The aim of this study is to evaluate the clinical safety and efficacy of 2-octyl-cyanoacrylate as a skin adhesive for thoracotomies and sternotomies in the pediatric population, also in view of the related hospital costs.

Methods: from April to December 2010, 150 patients were enrolled in a prospective randomized clinical trial and divided into three groups:

Group 1: patients on whom the 2-octyl cyanoacrylate patch was used to replace the intradermal suture line (n=50);

Group 2: patients on whom the 2-octyl cyanoacrylate

patch was utilized as a barrier ("add on measure") in addition to a reabsorbable intradermal suture line (n=50); Group 3: control patients (n=50) whose wounds were sealed with a standard non-reabsorbable intradermal suture line. The purpose of this study was to evaluate the presence of postoperative infections and/or dehiscences of the wound, and hospital costs for each treatment.

Results: there were no wound infections. An overall number of nine wound dehiscences (6%) was reported, of which seven were in Group 3 (14%), two in Group 1 (4%) and none in Group 2 (p=0.01). Regarding these dehiscences, three were superficial (limited to the derma) and six (4%) extended to the subcutaneous tissues and required minor surgical wound revisions (one in Group 1, 2% and five in Group 3, 10%, p=0.01). After discharge, one patient in Group 3 required a new hospitalization. The dehiscences were more frequent in patients with a thoracotomy incision versus sternotomy patients (3/34, 8.8% vs 6/116, 5.2%)(p=ns).

The average hospital costs (intraoperative and postoperative) for the treatment of the wound was lower in Groups 1 and 2 (22.4 and 26 Euros, respectively) when compared to Group 3 (31 Euros)(p=0.01)(excluding the additional costs related to the treatment of postoperative complications).

In addition, the 2-octyl cyanoacrylate adhesive also guaranteed a barrier against accidental external wound contaminations which frequently occur in the pediatric age group (regurgitations, spreading of milk/food on the wound during the feeding, etc). Furthermore, being waterproof, it also improved the patients' hygiene, starting from the immediate postoperative days.

Conclusions: the use of 2-octyl cyanoacrylate plasters as an "add-on measure" is safe, effective, and provides the best cost-efficiency in the treatment of surgical wounds in pediatric patients treated for congenital heart diseases.

References

- Souza EC, Fitaroni RB, Januzelli DM, Macruz HMS, Camacho JCA. Use of 2-octyl cyanoacrylate for skin closure of sternal incisions in cardiac surgery: observations of microbial barrier effects. *Current Medical Research and Opinion* Vol. 24, No. 1, 2008, 151-155.
- Pachulski R, Sabbour H, Gupta R, et al. Cardiac device implant wound closure with 2-octylcyanoacrylate. *J Intervent Cardiol.* 2005;18:185-7
- Silvestri A, Brandi C, Grimaldi L, et al. Octyl-2-cyanoacrylate adhesive for skin closure and prevention of infection in plastic surgery. *Aesthetic Plastic Surgery* 2006;30:695-9

11.45 - 12.00

Intraosseous infusion as a possible and efficient alter-

native in managing critically ill patients: literature review.*Cristiano Cortello, Portogruaro, Venice*byron73@teletu.it

Introduction: the 2005 guidelines of the ERC (European Resuscitation Council) and the latest amendments issued in 2010, support the scientific evidence and efficiency of intraosseous infusion as a valid alternative to central venous catheter infusion, particularly in the handling of pediatric patients.

Objectives: these publications were reviewed to describe the outcomes obtained from intraosseous infusion and compare the various methods in use.

Methods: research for the publications was conducted through the Mesh database of Pubmed, in the month of July 2011, with keywords such as "Intraosseous" [MeshTerms] and "Infusion" [MeshTerms].

These were used also for research in Google Scholar. Twenty-nine were selected out of a total of 63.

Results: intraosseous infusion should be considered as a possible alternative to intravenous and peripheral infusions should these not be accessible in the span of a few minutes. The most effective and efficient method recommended is the EZ-IO system. It has been shown that intratracheal administration of drugs will not guarantee peak plasma concentration and will need ten times the amount should the drug be injected in the veins.

Conclusion: the recommendations based on the evidence published up to now, urge the use of intraosseous infusion when handling critical cases in the absence of rapid intravenous access. Intraosseous infusion is in effect, comparable to the central venous catheter through which crystalloids, colloids, blood products, and drugs may be infused. It may be used to draw samples for lab tests. Retrospective studies showed benefits for the patient and the healthcare team.

Key words: Intraosseous, emergency, assistance, infusion.

12.00 - 12.15**The Head Nurse of the NOB (new children's hospital). A Multi-disciplinary Project of the University-Hospital Enterprise of Parma. A challenge for the future.***Maria Pia Bonconti, Carlo Lazzari, Azienda Ospedaliera Universitaria Parma*mbonconti@ao.pr.it

In planning and constructing the New Children's Hospital, a "strategic commission" was assigned with organizational/logistic tasks that would define the new lines of programming strategies to be

undertaken, manage the healthcare team, and last but not least, make sure the hospital will be operational as soon as it is inaugurated. Among the other members of top management, the Head Nurse of the Multi-Disciplinary project of the New Children's Hospital is included, as head of the healthcare team. Having a model of an intensive care unit in the pediatric department of the New Children's Hospital is the concrete proof of the Parma University-Hospital's extensive innovation, focused on the importance of the child and his/her family in the care and assistance pathways.

Aims:

1. To plan the organization of the hospital as well as the healthcare team to be deployed in the New Children's Hospital (NOB), and to make sure that there are professionals who are able to determine care pathways according to the different needs of the patients and at the same time are capable of adopting innovative instruments that will facilitate the process.
2. To define new organizational models in collaboration with the different professionals concerned, guide the procedures towards strategies based on the proper use of resources, and promote further training and education of personnel involved in the project.

Job description of the Multi-Disciplinary Head Nurse of the New Children's Hospital project.

The head nurse has the right to take part in the activities of the strategic group, which defines the planning, logistics, organization and management of the healthcare team of the new hospital. The Head Nurse collaborates in determining the hospital's budget to be allocated for the purchase of technology and furnishings and in agreement with the director of the healthcare team, and defines the staff structure based on the type of care and on the new organizational models. He/she coordinates with the personnel responsible for blood analysis, production and testing of operating tools (integrated medical records, standardized Therapy Fact Sheet). He/she encourages relations with other non-hospital pediatric facilities in order to foster important links not only with other hospitals of the territory but also to promote continuity of care; he/she identifies areas of integration with other business units and implementing ad-hoc organizational models. Furthermore, he/she participates in the determination of floor plans, and other technology in collaboration with professionals, technicians, patients and relatives themselves who participate in the NOB's activities.

Conclusion: the Head Nurse of the Multi-Disciplinary project is a central figure in the coordination of the new organization of the NOB.

12.30 - 12.45

Open ICUs: The experience of the IRCCS Burlo Garofalo of Trieste.

Adriana Micali, Debora Cesar, Pediatric ICU, Pediatric Hospital "Burlo Garofolo", Trieste

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Introduction: this study presents and analyses the motivations behind the decision to keep the paediatric intensive care unit of Burlo Garofolo Institute open 24 hours.

Method: after extending the visiting hours of paediatric intensive care unit to 24 hours and explaining the rules of conduct of visitors, the institute was able to gather the experiences of the young patients and their respective parents through a descriptive survey.

Conclusion: according to the documentation presented and opinion of the staff, the decision was made to keep the paediatric ICU open to the patient's family/caregivers. With a view to considering the family as the central point of assistance, and in the conviction that this brings about better service and assistance, it is hoped that in the future, more facilities will make this same choice.

Bibliography

- Smith T, Conant Rees HL. Making family-centred care a reality. *Nurse Management Seminar*. 2000; 8:136-42
- Molina RC, Fonseca EL, Waidman MA, Marcon SS. The family's perception of its presence at the paediatric and neonatal intensive care unit *Rev Esc Enferm USP*. 2009 Sep; 43(3): 630-8.
- Giannini A, Miccinesi G. Parental presence and visiting policies in Italian paediatric intensive care units: a national survey. *Paediatric Critical Care Med* 2011 Mar; 12(2): 236-7

12:45-13:00 Discussion

13.00 14.00 Lunch Break



17 November 2011 - Afternoon



Ecm 2

14.00 - 20.00 p.m.

Simultaneous meetings with pre-registration

20:00 - 21.00

Assembly of Aniarti members

18 November 2011 - Morning



Ecm 1

Session 5

8.30 - 12.30 a.m.

Moderator: Elio Drigo, Antonella D'errico

8.30 - 9.10

The 30-year presence of Aniasi: the economic value of a cultural activity.

Silvia Scelsi, Aniasi Vice-President

Systematic exposure of fundamental elements of a liberal nursing organization, for their noteworthy factors that impact on the economy and - in a broad perspective - on the healthcare system, with particular reference to critical care.

Video report with short interviews on the 30-year contribution of Aniasi within the concept of a rich "economy" not only in monetary terms, but which also underlines the importance of recovering the more noble aspect of economy.

9.10 - 10.00

Balancing efficiency and equity in healthcare financial issues.

Enza Caruso, Political Science faculty, University of Perugia

Today, managing cost-containment within the limit imposed by public finance is an obvious need of all healthcare systems: budget control and the affiliation between equity issues concerning access to services and efficiency in offering these healthcare services, are the central themes of great importance, which in many parts of Europe have contributed to launching a new season for the re-centralization of the healthcare's system of governance. The preservation of the public and domestic nature of our National Health Service (NHS), however, requires the combination of budgetary discipline and an incisive and equally necessary national healthcare programming to restore conditions of convergence towards really equal access to and use of the network of services, which guarantees citizens' rights across the nation.

10.00 - 10.40

Nursing care as an economic factor: budget costs, determining factor for the quality of life and cultural contribution to the community.

Maura Lusignani, University of Milan

The paper describes the specific conditions and areas of intervention of nurses within the healthcare system and specifies the nurses' allotment of activities within such system, to identify (or at least assume) not only what is strictly intended as "non-economic" contribution but the overall wellbeing guaranteed also by the participation of nurses. The aim is to furnish data on the related costs of the nursing care system nationwide and highlight the nurses' specific contribution to the preservation and reform of the country's healthcare system.

10.40 - 11.20

The responsibility of operators in reforming the welfare system from expenditure to investment of resources.

Bruno Cavaliere, Health Professional Department, Hospital of the University of San Martino, Genoa

Gives some examples of the considerable misinformation citizens have on the consistency and extent of problems caused by illness and/or impairment of health.

Highlights the factors that make healthcare workers the most knowledgeable experts with regards to the size and depth of the problems caused by illness and/or impairment of health.

Underlines the factors that make the welfare state a fair and overall economical system in terms of resources and products for the quality of life it targets and guarantees globally. This system should thus be protected as compared to other systems that attribute only to single individuals the responsibility for the choices made in safeguarding their own health. Provides guidelines for a number of activities operators should perform, in their role as experts on specific problems in order to create a systematic method that promotes an information campaign to make citizens, administrators and politicians aware of the

extent and depth of problems caused by illness and/or impairment of health.

11.20 - 12.00

Aniarti report for a balanced interpretation of the meaning and use of economic resources in relation to nursing care.

Fabrizio Moggia, President of Aniarti

Presentation of the final results of the association's internal observations; Finalize the issues to be included in the independent drafting of reports to be disseminated to all nurses and not only those in critical care. Encourages an ethical attitude towards the correct and environmentally sound use of resources (material, scientific and professional) even in the area of healthcare processes.

Closing speech

