EUROMEDITERRANEAN BIOMEDICAL JOURNAL

for young doctors

Special Issue

MILANO 19-21 MARZO 2015
Polo Città Studi, Via Mangiagalli 34

LE COMPETENZE DEL FUTURO PROFESSIONISTA DI SANITÀ PUBBLICA: PERCORSI E NUOVE SFIDE

III EDIZIONE
Giornate degli Specializzandi in Igiene e Medicina Preventiva

National Conference of Public Health Medical Residents
of the Italian Society of Hygiene, Preventive Medicine and Public Health (S.It.I.)
3th EDITION
THE FUTURE ROLE OF THE MD SPECIALIST IN PUBLIC HEALTH: EXPERTISE AND NEW CHALLENGES
Milan, 19-21 march 2015

ABSTRACT BOOK

National Conference of Public Health Medical Residents of the Italian Society of Hygiene, Preventive Medicine and Public Health (S.It.I.)

The future role of the MD specialist in Public Health: expertise and new challenges

3rd EDITION- Milan, 19-21 march 2015

ISSN 2279-7165 - Euromediterranean Biomedical Journal [online]

42,134 discharges were identified, adding up to an annual pneumonia-related hospitalization rate of 288.0/100,000 people, and with a hospitalization trend that increases with age. The primary diagnosis was pneumonia in 41,258 (97.9%) cases; among the pneumonia-associated cases, the primary diagnosis was septicemia in 756 (1,8%), empyema in 90 (0,2%) and meningitis in 30 cases (0,1%). The overall pneumonia-related hospitalization rate did not change significantly during the study period (AAPC: 0.3% [95% CI: -0.5, 1.2]). For the 15- to 64-year-olds and for the 65- to 79-year-olds age groups, the rate dropped significantly from 100.6/100,000 in 2000 to 66.1/100,000 in 2011 (AAPC: -3.3% [95% CI: -4.6; -2.0]) and from 555.1/100,000 in 2000 to 461.7/100,000 in 2011 (AAPC: -1.3% [95% CI: -2.5; 0.1]), respectively. In adults aged 80 or over, the incidence increased significantly from 1,637/100,000 in 2000 to 2,293.7/100,000 in 2011 (AAPC: 3.0% [95% CI: 2.1; 3.9]). The overall pneumonia-related mortality rate was 24.5% and increased with age, peaking in people over 80 (32.1%). One comorbidity was present at least in 36,049 (85.6%) subjects, with the most common comorbidities being heart disease in 10,473 (24.9%), COPD and asthma in 6,324 (15%), diabetes mellitus in 4,941 (11.7%), stroke in 4,415 (10.5%), dementia in 3,640 (8.6%), renal disease in 3,188 (7.6%) and cancer in 3,068 cases (7.3%).

The estimated overall annual costs of pneumonia-related hospitalizations was around €11 million, with an estimated cost per patient of €3,197. People aged 65 or over accounted for 75% of the estimated overall cost. The overall average hospital stay was 12.6 days.

Conclusions

This study shows that hospitalization for pneumonia has a considerable impact on the health services, especially for the elderly. The availability of new-generation pneumococcal conjugate vaccines with a broader antigenic spectrum suitable for all ages offers interesting new opportunities for a better control of pneumococcal disease in the whole population.

P. PRIMARY HEALTH CARE AND NON-COMMUNICABLE DISEASES

P01. Telemedicine in chronic disease management: a Public Health perspective

Colucci M.[1], Baldo V.[2], Baldovin T.[2], Bertoncello C.[2]

1 School of Specialization in Hygiene and Preventive Medicine, Department of Molecular Medicine, University of Padua, Italy; 2 Public Health Section, Department of Molecular Medicine, University of Padua, Italy

Introduction

In 2014, the School of Hygiene of the University of Padua carried out an evaluation of home telemonitoring (HTM) programs for the management of chronic diseases. Our aims were to verify their efficacy, and to identify a model of care that could be integrated into the current health system. Our analysis addressed both organizational and clinical matters.

Methods

Our evaluation involved 19 reviews and 53 randomized controlled trials (RCT). Main selection criteria were: papers published over the last 15 years, HTM performed through a sensor system, data sent remotely to physicians, health outcomes and monitored parameters clearly stated. Included diseases were: heart failure, hypertension, COPD, asthma and diabetes.

Results

Several critical issues were highlighted. Due to the general tendency in the scientific literature to report HTM efficacy, there is a lack of conclusive evidence whether telemedicine actually improves both clinical (e.g. decreased disease/all-cause mortality, drop in disease/all-cause hospitalization rates, improvement in biological parameters and quality of life) and organizational (decreased length of hospital stay, decreased emergency room/other service use, decreased costs) outcomes or not.

Discussion

From a Public Health perspective, discrepancies and weaknesses may affect published results, since the best method for organizing and delivering telemedicine programs has not yet been identified. There is still no consensus on the following topics:

- setting: which context expresses the potential of technology best? No studies were found comparing, e.g., rural with urban communities. Within urban scenarios, samples do not discriminate users by their capability to access the healthcare network (e.g. residents in peripheral areas with limited transportation resources, rather than users with reduced mobility);
- target: it is unclear which demographic or socioeconomic characteristics users should possess to gain most benefit from HTM;
- duration and frequency: there are significant differences in RCT (and HTM program) duration. It has not been established whether HTM is more effective when permanently implemented, or only in the early stages of disease (i.e. until stabilization). There is no agreement on the optimal HTM implementation frequency, nor whether the patients should also receive traditional interventions (e.g. nurse home visits);
- scope: it has not been determined whether measurements should be disclosed to patients as educational means to improve disease management. However, past literature does include some indications that the effectiveness of HTM programs may be attributable to care intensification (or to a perceived intensification by the patient, as per the "Hawthorne effect" described in sociology) or to the empowerment process.

Conclusions

HTM management of chronic diseases is a promising and remarkable strategy, still flawed by the lack of evidence. Reported efficacy, although modest, probably has a multifactorial origin. Our hypothesis is that it may not result from the technology itself, but from the impact of such process on multiple components of care, emphasizing patients' involvement and autonomy, and improving monitoring intensity. Further studies are needed to clarify the role played by the different HTM components (target, setting, etc.). The application of HTM as a tool for prevention, empowerment and reduction of healthcare access remains little explored.

####

P02. Thirty-day mortality after colorectal cancer surgery in Umbria

Marzulli T.[1], De Lio M.C.[1], Rocca A.[1], Dolciami F.[1], Gili A.[2], Leite S.[2], Masanotti G.[3], Stracci F.[1,2,3]

1 School of Specialization in Hygiene and Preventive Medicine, University of Perugia, Italy; 2 Umbrian Population Cancer Registry; 3 Department of Experimental Medicine, Public Health Section, University of Perugia, Italy

Introduction

Colorectal cancer (CRC) is the third most common malignancy in Italy in both sexes. Surgery is the mainstay of colorectal cancer treatment. Thirty-day mortality following CRC surgery has conventionally been used to assess perioperative outcome.

Our study aimed to investigate 30-day mortality following CRC surgery.

Methods

Cases were obtained from the Umbrian Population Cancer Registry (RTUP). Data related to patient characteristics and treatment were extracted from pathological reports, medical records and hospital discharge abstracts. Postoperative 30-day mortality data were obtained from the regional death cause registry. The study sample consisted of patients who underwent major CRC surgery (i.e. procedures performed with open or laparoscopic approach, excluding local procedures) in the period between January 2002 and December 2010.

The variables assessed were gender, age (<65 years, 65-74 years, 75-84 years and ≥85 years), tumor stage, intent of surgery (curative or palliative), type of presentation (emergency or elective), surgery procedure group and hospital surgical volume (low volume <30, intermediate volume 30-100, high volume > 100). Moreover, we investigated mortality in relation to the patients' socioeco-