16th International conference on integrated Care, **Barcelona, Spain, May 23/25, 2016**.

Tema: Advancing People-Centred and Integrated Care

Panel title. Challenges and achievements in integrated care: different health and social care providers working together. Successful projects that show that this is the way.

A. Riera. Director. Unió Catalana d'Hospitals.

Background: The Catalan health system is a public healthcare system, funded by taxes, with universal coverage and public healthcare services portfolio. There's a mixed healthcare providers network. On the other hand, there's a public network of social services also focused to chronically ill patients social needs. Delivery of integrated health and social care with a shift to a patient-centered model is one of the main challenges of our public system. We will share three experiences of different models developed to improve integration of social and healthcare services, to guarantee the continuum of care and to achieve quality health and social care outcomes.

1.- Chronicity and the role of nursing expertise: care and cure network.
N Borrell, Clinical Nurse Complex Surgical Patient, Moisès Broggi Hospital.

Chronic patients care is one of the challenges of the health system due to increasing incidence and morbidity of population involved. To meet the complex chronic patients (PCC) needs or advanced chronic illness (MACA) we have developed Integrated Care Units (AAI) led by nurses as responsible for ensuring a comprehensive and integrated nursing care, ensuring quality of care and continuum between health and social services. Results show that people needs are better identified and care resources better used.

2.- The Mental Health Chronic Complex Patients Program: an intervention for reducing use of services and improving care for chronic complex patients in Catalonia.
A. Serrano, Director Acute Inpatient Unit, Parc Sanitari Sant Joan de Déu.
JL. Argudo, Director of Healthcare Programs, Parc Sanitari Sant Joan de Déu.

A Mental Health Chronic Complex Patient Program (MHCCPP) was developed aiming to avoid unnecessary hospitalizations and unscheduled visits at the emergency services of chronic complex patients (CCP). A person-centered intervention was provided by a case manager, who coordinates the mental health care network.
78 patients (54.9% women, mean age of 44.6 years old) were included at the MHCCPP, 34.6% suffered Schizophrenia, 15.4% Major Depression and 50% other disorders. Results are measured, including improvement in EQ-5D tariff, EQ-5D-VAS, SF-12-Mental, SF-12 Physical Index and HoNOS.

MHCCPP patients stay 8 days less at the Acute Inpatient Unit and 10 days more at the Day Hospital during the year after inclusion. Analyses show an improvement on quality of life and functioning in the intervention group. Less hospitalization days and more Day Hospital stays have been found in patients treated at MHCCPP.

3.- PRINCEP program: clinical program for specialized and integrated care of pediatric patients with complex chronic conditions.

S. Ricart. PRINCEP program. Pediatrics Department. Hospital Sant Joan de Déu, Esplugues, Barcelona (Spain)

With the development of the science and technology applied to health, infant mortality has drastically dropped in the last half century. This longer survival has led to a new phenomenon: the increase in pediatric complex chronic conditions (CCC). PRINCEP program is aimed to offer integrated care for patients who are dependent of technology assistance, need specific case management or regular use of hospital facilities. The program is efficient in the care of CCC children with social vulnerability. Results shown that its implementation to other areas would allow better care coordination and savings in health and social costs. It also obtains long-term benefits for the health system: a greater number of CCC children will reach the adulthood in better conditions, being well integrated in its community and well known for the professionals, allowing the optimization of resources and the patients well-being.

Cronicitat i el paper d'infermeria experta: CUIDAR I CURAR EN XARXA.

Núria Borrell, Infermera Clínica de Pacient Quirúrgic Complex Hospital Moisès Broggi.

L'atenció als pacients crònics és un dels pilars del sistema sanitari per la creixent incidència en la població i la morbiditat que comporta. Per atendre al pacient crònic complex (PCC) o amb malaltia crònica avançada (MACA) sorgeixen les àrees d'atenció integrada (AAI) liderades infermeria com a responsable d'assegurar unes cures d'infermeria integrals, de qualitat i garantint el contínuum assistencial entre serveis sanitaris i socials.

ANGLÈS

Chronicity and the role of nursing expertise: care and cure network

Núria Borrell, Clinical Nurse Patient Surgical Complex , Moisès Broggi Hospital.

Chronic patients care is one of the challenges of the health system due to increasing incidence and morbidity of population involved. To meet the complex chronic patients (PCC) needs or advanced chronic illness (MACA) we have developed Integrated Care Units (AAI) led by nurses as responsible for ensuring a comprehensive and integrated nursing care, ensuring quality of care and continuum between health and social services. Results show that people needs are better identified and care resources better used.

Model d'assistència integrada: un marc de col·laboració entre els àmbits Social i de Salut en l'atenció domiciliària

José Luis Argudo, director de Programes Assistencials del **Parc Sanitari Sant Joan de Déu**. **Ana Pérez**, directora de la **Fundació d'atenció a la dependència Sant Joan de Déu**.

Aquesta iniciativa es va posar en marxa per atendre les persones en el seu domicili, ja sigui per tractar aspectes socials com de dependència o de millora de l'autonomia, i es basa en la col·laboració públicoprivada. Entre els seus punts forts destaquen la detecció de les necessitats de l'usuari abans de rebre l'alta de l'Hospital General, l'atenció professionalitzada i la coordinació entre equips sanitaris i socials.

ANGLÈS

Integrated care model: a framework for collaboration between Social and Healthcare for home care of dependent people.

José Luis Argudo, Director of Healthcare Programs, Parc Sanitari Sant Joan de Déu.Ana Perez, director **Fundació d'atenció a la dependència Sant Joan de Déu**.

This initiative was launched to assist people at home, whether to treat social issues as dependency or autonomy improvement as well as healthcare needs, and is based on public-private co-operation. Among its strengths includes the detection of the user's needs before discharge from hospital, professionalized care and coordination between health and social teams.

THEME 3. Advancing People-Centered and Integrated Care.

Authors:

Ricart Campos, Silvia
Pediatrician. PRINCEP program. Pediatrics Department. Hospital Sant Joan de Déu, Esplugues, Barcelona (Spain)
sricart@hsjdbcn.org

Lasheras Soria, Esther
Social worker. PRINCEP program. Social Work Department. Hospital Sant Joan de Déu, Esplugues, Barcelona (Spain)
elasheras@hsjdbcn.org

Aldemira Liz, Andrea
Pediatrician. PRINCEP program. Pediatrics Department. Hospital Sant Joan de Déu, Esplugues, Barcelona (Spain)
aaldemira@hsjdbcn.org

Title: PRINCEP program: clinical program for specialized and integrated care of pediatric patients with complex chronic conditions.

Introduction

With the development of the science and technology applied to health, infant mortality has drastically dropped in the last half century. This longer survival has led to a new phenomenon: the increase in pediatric complex chronic conditions (CCC). Recent studies have described the increasing prevalence of CCC among all pediatric hospitalizations in the United States, accounting for 10% of all pediatric hospital admissions and 40% of pediatric hospital charges (Simon et al. Pediatrics 2010).

CCC are associated to lifelong disabilities, medical fragility, functional limitations that require assistance from technology, and a high dependency from the health care system. A child with CCC has a great impact in the family, who experience deep organizational and emotional changes. In many cases other social factors like poverty, job insecurity, level of education and place of residency play also a role in this health process.

In response to this situation, our institution developed a multidisciplinary team (called PRINCEP program) in 2012 addressed to these patients. PRINCEP program is aimed to offer integrated care for patients who are dependent of technology assistance, need specific case management or regular use of hospital facilities.

Description

PRINCEP is structured in a multidisciplinary team that includes pediatrician, nurse, social worker and psycho-spiritual specialist, with the following objectives:

- To offer a family-centered and integrated social and health care to pediatric patients with CCC.
- To improve the care experience of these patients and families, stimulating their self care.
- To optimize resource use reducing costs.
- To promote the continuity of care during the transition to adult care, ensuring that patients reach adulthood in the best conditions.

Target population is selected using the following criteria (main plus 2 or more complementary criteria are needed):

- Main criteria: incurable disease with life expectancy greater than 12 months.
- Complementary criteria: 2 or more severe chronic conditions associated with medical fragility, regular consultation with 3 or more subspecialists, need of technology assistance (gastrostomy or tracheostomy tube, mechanic ventilation...), more than 2 unplanned admissions per year, substantial social vulnerability.

PRINCEP provides coordinated care between inpatient (specialist) and outpatient services (primary care, schools, early childhood development centers, social services). Patients can contact the team by mobile and webmail the 24 hours a day, 365 days a year.

Key findings

From October 2012, when PRINCEP was established, there has been a progressive increase in the cases managed: 22 in 2012, 68 in 2103, 97 in 2014 and 111 in 2015. There are 4 main groups of patients: polymalformative or genetic syndromes (frequently affected by rare diseases), severe neurologic diseases, epidermolysis bullosa, and technology-depended children.

From 2012 to 2014 a decrease was seen in: the average yearly admissions per patient (from 5.7 admissions/patient/year in 2012 to 0.94 in 2014, $p<0.001$); the hospital stays (from 73 days/patient/year to 9.5, $p<0.0001$), the average length of hospital stay (from 12.9 days/admission to 8.8, $p<0.001$), the yearly outpatient visits (from 68.9 visits/patient to 21.3, $p<0.0001$) and the yearly emergency room visits (from 8.5 visits/patient/year to 2.0, $p<0.0001$).

The 43% of families had indicators of high risk of social vulnerability, so they underwent intensive follow up by the social worker.

Highlights

The care of children with CCC requires transversal skills that could respond to these patients needs: not only the medical and technology ones, but also the derived needs of the new social and family situation.

The main qualitative results of PRINCEP program are: greater satisfaction of the patient's families because of having a leader coordinating team; improved use of community services by these patients, with better integration to its community and less disruption in their daily life; increased satisfaction of health professionals; and optimization of health resources because of the drop in admissions and outpatients visits.

Conclusion

PRINCEP program is efficient in the care of CCC children with social vulnerability. Its implementation to other areas would allow better care coordination and savings in health and social costs. It is also expected to obtain long-term benefits for the health system: a greater number of CCC children will reach the adulthood in better conditions, being well integrated in its community and well known for the professionals, allowing the optimization of resources and the patients well-being.

(695 words)

TOPIC: Integrated Care in practice

KEYWORDS: pediatric complex chronic conditions, family-centered care, integrated care, care continuum, patient experience.

REMARKS

- Best Experience Prize in the 4th Catalan Health Plan 2011-2015 meeting (Sitges).
- AQuAS (Catalan Agency for the Quality and Health Evaluation) Certificate obtained in 2015.

ABSTRACT FORM FOR INDIVIDUAL PRESENTATION

ID	
Speaker	Antoni Serrano-Blanco
Title Max 150 characters (spaces included)	The Mental Health Chronic Complex Patients Program: an intervention for reducing use of services and improving care for chronic complex patients in Catalonia.
Abstract Max 350 words	**Background/Objectives** Chronic diseases consume more than 50% of the resources of the health system. A Mental Health Chronic Complex Patient Program (MHCCPP) was developed at the *Parc Sanitari Sant Joan de Déu* (PSSJD) aiming to avoid unnecessary hospitalizations and unscheduled visits at the emergency services of chronic complex patients (CCP). A person-centered intervention was provided by a case manager, who coordinates the mental health care network. This study aimed to evaluate the effectiveness of MHCCPP after two years of implementation. **Methods** A 2 year cohort study of patients attended at four health care areas of the PSSJD (Barcelona area, Spain) since May 2013 was developed. Patients included at the MHCCP group were recruited according to the number and length of hospitalizations during last year. A control group was formed using data of patients attended at other four health care areas of the PSSJD accomplishing the characteristics of a CCP. Health Related Quality of life (HRQL) and personal functioning were measured through SF-12, EuroQol-5D and HoNOS at the inclusion visit of the MHCCPP and at the discharge from this service. Satisfaction with the MHCCPP was assessed at the discharge using Verona SSQ. Data about the use of health care resources were obtained from the administrative claims database for both groups and will be compared during the same time-length period. **Results** 78 patients (54.9% women, mean age of 44.6 years old) were included at the MHCCPP, 34.6% suffered Schizophrenia, 15.4% Major Depression and 50% other disorders. After discharge there was an improvement in EQ-5D tariff (baseline mean 0.508 [SD 0.38], discharge mean 0.629 [SD 0.35] $p \leq 0.005$), EQ-5D-VAS (baseline mean 46.8 [SD 3.43], discharge mean 61.3 [SD 3.87] $p \leq 0.005$), SF-12-Mental Index (baseline mean 33.44 [SD 2.064], discharge mean 43.25 [SD 2.10], $p \leq 0.0002$), SF-12 Physical Index (baseline mean 43.52 [SD 1.72], discharge mean 50.32 [SD 1.57], $p \leq 0.0004$), and HoNOS (baseline mean 14.8 [SD 1.04], mean difference of -6.6 SD [1.24], $p \leq 0.0001$). MHCCPP patients stay 8 days less at the Acute Inpatient Unit and 10 days more at the Day Hospital during the year after inclusion. **Discussion/Conclusion** Analyses show an improvement on quality of life and functioning in the intervention group. Less hospitalization days and more Day Hospital stays have been found in patients treated at MHCCPP.
Keywords	Mental Health; Chronic Complex patients; health care services; hospitalizations; quality of life
First Author	Antoni Serrano-Blanco (1)
Address	C/ Picasso 12; 08830, Sant Boi de Llobregat. Barcelona (Spain)
Email:	aserrano@pssjd.org
Co-authors:	Ignacio Aznar (2), Mireia Vives-Collet (2), Jose Luis Argudo (3), Maria Rubio-Valera (2). (1) Psychiatric Acute Inpatient Unit, Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Spain. (2) PRISMA Research Group, Fundació Sant Joan de Déu, Sant Boi de Llobregat, Spain. (3) Dirección de Programas, Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Spain.
Submitter email:	aserrano@pssjd.org