Deployment of Integrated Care Services for complex chronic patients. Limitations and opportunities

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Medical and Nursing Direction
Hospital Clinic
Barcelona
Disclosures

No relevant commercial interests
Agenda

- Lessons learnt from deployment of Integrated Care.
  - Home Hospitalization
  - Transitional Care
- Adaptive case management strategies
- The Nextcare project
Catalonia
7.5 million inhabitants
GDP 108%
Rank 82
Healthcare system ranks 18

Gross Domestic Product (GDP) in purchasing power standards per EU regions in % EU28 average = 100
Health System Decentralization

Central Government
- Basic legislation and coordination
- Minimum package funded through NHS
- Pharmaceutical policy
- International health policy
- Educational requirements

Autonomous Government CATALONIA
- Subsidiary legislation
- Organizational structure of the Health System
- Accreditation and Planning
- Purchasing and Service Provision
- Public Health
- Quality evaluation / Agency for Quality
The Catalan Health System
Overview and Key figures

Population 7,508,106

- 63 Hospitals
- 49 Mental health centers
- 370 Primary Care Teams
- 72 Long Term care centers
Shared Medical Record – Available information

Healthcare Centers Information

- Primary healthcare
  - Diagnosis
  - Healthcare reports
  - Immunizations
  - Chronic patients labels

- Specialized care, long-term care center and mental health
  - Discharge report
  - Emergency reports
  - Specialized outpatient clinic reports

- Diagnosis procedures
  - Pathology and laboratory reports
  - Radiology image
  - Imaging diagnosis reports
  - Other diagnosis tests reports
  - Interventions

Health Department Information

- Medical Activity DB
  - Diagnosis
  - Procedures

- Prescribed / Dispensed drugs
  - Electronic prescription

- Advanced directives
  - Advanced directives registry
**“Shared Individual Treatment Plan” (PIIC)**

<table>
<thead>
<tr>
<th>Pla d'Intervenció Individualitzat Compartit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnòstics</strong></td>
</tr>
<tr>
<td><strong>Medicació crònica</strong></td>
</tr>
<tr>
<td><strong>Al·lèrgies</strong></td>
</tr>
</tbody>
</table>

- **Directrius si crisi o descompensació**
- **Pla de decisions anticipades**

- **Valoració multidimensional (test)**
- **Valoració multi dimensional (text lliure)**

<table>
<thead>
<tr>
<th><strong>Dades EAP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Atenció al pacient</strong></td>
</tr>
<tr>
<td>Servei teleassistència?</td>
</tr>
<tr>
<td>Atès per gestor de casos?</td>
</tr>
<tr>
<td>Viu en residència?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cuidadors</strong></th>
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</thead>
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- **Informació addicional**

- Health problems/Diagnosis
- Active Medication
- Allergies
- Instructions for “in cases of crisis” or exacerbation
- Advanced Care Planning
- Resources and services used
- Multidimensional assessment
- Carer whom decisions are delegated
- Additional information of interest
Health Plan for Catalonia 2016-2020

Health across all policies

1. Persons, their health and Health System
2. Healthcare professionals involvement

HEALTH QUALITY

3. Public Health
4. Accessibility & Performance
5. Drugs & Pharmaceutical Policy
6. Integrated & Chronic Care
7. Health Research & Innovation

GOOD GOVERNANCE

8. Excellence & Safety
9. Outcomes Evaluation & Transparency
10. Digital Health
11. Territorial Integration

HEALTH ACROSS ALL POLICIES

12. Cross-ministerial and cross-sectoral policies

Generalitat de Catalunya
Departament de Salut
Government of Catalonia
Ministry of Health

PRIORITY AREAS & STRATEGIC PROJECTS

Vulnerable infants & teenagers
Elderly & people with disabilities
Mental Health
Minority Diseases
Communicable Diseases
Osteo-articular System
Respiratory System
Vascular System
Cancer
Healthcare in Barcelona is provided in the framework of the public health system based on the model of the National Health Service. The organization is structured in four integrated health areas, one of which is the Integrated Health Area of Barcelona Esquerra (Área Integral de Salud de Barcelona Esquerra – AIS-BE).
Barcelona Esquerra
534,955 inhabitants
21% > 65 years

19 Primary Care Teams
4 Hospitals

International Journal of Integrated Care. 2016. 16(2): 8, pp.1-10
Hospital vs Territorial Healthcare

Agenda

  - Lessons learnt from deployment of Integrated Care.
    - Home Hospitalization
    - Transitional Care
  - Adaptive case management strategies
  - The Nextcare project
Integrated Care Services are the core component of the care model for chronic patients

An Integrated Care Service is an articulated set of standardized actions aiming at covering the patient’s health needs, taking into account his/her environment and conditions

- Patient-centered, not necessarily disease-centered
- Designed to achieve target health goals within a comprehensive plan for the patient. Based on process design with a longitudinal approach which duration varies for each service
- A patient can be assigned to one or more integrated care services
Integrated Care Unit. Hospital Clínic

Home hospitalisation of exacerbated chronic obstructive pulmonary disease patients


Integrated care prevents hospitalisations for exacerbations in COPD patients

Casas et al ERJ 2006;28:123-30


Telemedicine enhances quality of forced sipometry in Primary Care


Deployment of Home Hospitalization and Early Discharge as an Integrated Care Service: a pragmatic assessment.

Hernández, C, et al. (IJIC.2018)

Effectiveness of Integrated Care in frail COPD patients: A randomized control trial

Hernández et al. npj Primary Care Respiratory Medicine (2015) 25, 15022

Assessment of health status and program performance in patients on Long-Term Oxygen Therapy.


Integrated care services: lessons learned from the deployment of the NEXES project.

Deployment of the Integrated Care Model

Service model

- Target patients
- Management by programs
- Well standardized interventions
- Patient-centered care

Patient

Patient Gateway

Support center

Providers network

- Triage
- Self-management
- Remote monitoring
Deployment of the Integrated Care Model

Integrated Care model

Work plan definition

Case evaluation

Normalisation of practices
Reallocation of roles
ICT application

Follow-up & event handling

Discharge

Hospital

Emergency team
Consultant
Case Manager
Mobile teams
Primary Care Team

Primary care

Patient
Relatives & care givers
Home
Home Hospitalization/Early Discharge Definition

- We defined Home Hospitalization/Early Discharge as a service providing acute, home-based, short-term complex interventions aiming at fully (Home Hospitalization) or partially (Early Discharge) substituting conventional hospitalization.

- The service was delivered by trained hospital personnel for a period of time that should not be longer than the expected length of hospital stay for the patient’s diagnostic related groups involved.

- The Hospital retained clinical, fiscal, and legal responsibility for the pharmaceutical input, medical supervision, and nursing care of the hospital at the patient’s home.

Hernández C, et al. . Int J Integr Care 2018
Hospital at Home: Feasibility and Outcomes of a Program To Provide Hospital-Level Care at Home for Acutely Ill Older Patients

Objective – To evaluate implementation and 10 years follow-up of Home Hospitalization (HH) and Early Discharge (ED) as an ICS into an urban healthcare district in Barcelona (ES).

Design – Prospective study with pragmatic assessment of the deployment of HH/ED. Setting and patients: Surgical and medical acute and exacerbated chronic patients requiring admission into a highly specialized hospital (Hospital Clinic).


Intervention – Home hospitalization for a period equivalent to the hospital stay for the DRG. Integrated care intervention

Target variables – Reduction of days of in-hospital hospital stay, early readmissions, visits to emergency department, 30-day mortality, costs

RESEARCH AND THEORY

Implementation of Home Hospitalization and Early Discharge as an Integrated Care Service: A Ten Years Pragmatic Assessment

Carme Hernández*, Jesus Aibar†, Nuria Seijas†, Imma Puig†‡, Albert Alonso*, Judith Garcia-Aymerich§ and Josep Roca*
Total cases of evaluated n= 7,417

Excluded n= 3,252 (44%)

Outside Healthcare District n= 613 (19%)

Medical Criteria n= 749 (23%)

Lack caregiver n= 676 (21%)

Not willing to participate n= 577 (18%)

Team overload n= 261 (8%)

Other circumstances* n= 220 (7%)

Short stay unit n= 105 (3)

Nursing home n= 51 (1%)

Included n= 4,165 (56%)

Respiratory n= 1474 (35%)

Acute Illness n= 1203 (29%)

Post-surgery n= 705 (17%)

Cardiology n= 452 (11%)

Oncology n= 331 (8%)
Patient evaluation

Qüestionaris validats

Consentiment informat
Clinical case

Patient's dependence factors

Socio-demographic

72 yrs, Live alone

Healthcare related factors

Follow up: 3 m
Home Care programs: NO
Therapeutic educational programs: NO
Rehabilitation: NO

Blood gases: pH: 7.44; PaO$_2$: 45, PaCO$_2$: 38.5

6MWD: 76 % SatO$_2$ without oxygen (final test).
Distance: 360 m

4 Hospital admissions

COPD
4 comorbid conditions

Risk factors and treatment

Severely frail
Moderate dependency
Moderate depression

Ex smoker (50 p/yr)
Sit all day
MRC: 3
IMC: 29.9
6 different treatments
LTOT (8 hrs/day)

Chronic Conditions

Moderate dependency
Moderate depression

acute exacerbations COPD
Long term oxygen therapy (LTOT) (8 hrs/day)
## Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n° discharge</td>
<td>4,165</td>
</tr>
<tr>
<td><strong>In-Hospital stay, days</strong></td>
<td></td>
</tr>
<tr>
<td>Hospital stay (Median, P&lt;sub&gt;25-P&lt;sub&gt;75&lt;/sub&gt;)</td>
<td>1(0-3)</td>
</tr>
<tr>
<td><strong>Home stay, days</strong></td>
<td></td>
</tr>
<tr>
<td>Home stay (Median, P25-P75)</td>
<td>6(5-7)</td>
</tr>
<tr>
<td><strong>Total length of stay, days</strong></td>
<td></td>
</tr>
<tr>
<td>In-hospital + Home (Median, P25-P75)</td>
<td>7(6-10)</td>
</tr>
<tr>
<td><strong>Use of resources during HH/ED</strong></td>
<td></td>
</tr>
<tr>
<td>Number of Physician visits, m±SD</td>
<td>1±0.5</td>
</tr>
<tr>
<td>Number of nurse visits, m±SD</td>
<td>7±3</td>
</tr>
<tr>
<td>Number phone call to the patient, m±SD</td>
<td>2±1</td>
</tr>
<tr>
<td>Emergency Room visits, n(%)</td>
<td>68(2)</td>
</tr>
<tr>
<td>In-Hospital re-admissions, n(%)</td>
<td>201(5)</td>
</tr>
<tr>
<td><strong>Outcomes at 30 days after HH/ED discharge</strong></td>
<td></td>
</tr>
<tr>
<td>Emergency Room visits, n(%)</td>
<td>311(7)</td>
</tr>
<tr>
<td>Hospital admissions, n(%)</td>
<td>461(11)</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td></td>
</tr>
<tr>
<td>During episode, n(%)</td>
<td>12(0.3)</td>
</tr>
<tr>
<td>During 30 days post discharge, n(%)</td>
<td>94(2)</td>
</tr>
<tr>
<td><strong>Transitional Care after HH/ED discharge</strong></td>
<td></td>
</tr>
<tr>
<td>Primary care n(%)</td>
<td>3527(85)</td>
</tr>
<tr>
<td>Palliative care n(%)</td>
<td>226(5)</td>
</tr>
<tr>
<td>Hospital n(%)</td>
<td>292(7)</td>
</tr>
</tbody>
</table>

Data are expressed as mean ± standard deviation for quantitative variables and number (percentage) for discrete variables. It is expressed as median (25-75th Percentile) in quantitative variables showing extreme values. #Chi2 test or Fisher's exact test were used for the comparison of proportions. Indicates statistical significant differences between the two groups. * The Mann-Whitney U test was used for variables not normally distributed. Home Hospitalization (HH), Early Discharge (ED).
## Qualitative analysis

<table>
<thead>
<tr>
<th>Domains</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patients’ perspectives</strong></td>
<td></td>
</tr>
<tr>
<td>Acceptance to participate</td>
<td>82% of the patients</td>
</tr>
<tr>
<td>Patients. Satisfaction</td>
<td>99 % of the subjects reported that the treatment received was very good.</td>
</tr>
<tr>
<td>Caregivers. Satisfaction</td>
<td>90% of the patients stated that they would repeat the experience if needed.</td>
</tr>
<tr>
<td></td>
<td>94% of the caregivers stated that they would repeat the experience if needed.</td>
</tr>
<tr>
<td><strong>Professionals’ perspectives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial common resistances to implementation from both Hospital and Primary Care staff markedly decreased over time.</td>
</tr>
<tr>
<td></td>
<td>Professionals of the HH/ED team showed high degree of satisfaction throughout the deployment period.</td>
</tr>
<tr>
<td><strong>Organizational and regulatory aspects</strong></td>
<td>The HH/ED enforced the bridging between hospital and community care throughout the study period and increased the transitional patient face after HH/ES discharge.</td>
</tr>
<tr>
<td><strong>Technologies</strong></td>
<td>Majors lessons learnt during the study period:</td>
</tr>
<tr>
<td></td>
<td>i) Interoperability at a health system level, across levels of care and among providers, is a must to optimize the program;</td>
</tr>
<tr>
<td></td>
<td>ii) Remote monitoring used by professionals visiting patient-home showed high efficacy and it was a source of cost-containment;</td>
</tr>
<tr>
<td></td>
<td>iii) Patient self-monitoring showed limited potential because of two main factors: the acute condition of the patient and the short available learning period</td>
</tr>
</tbody>
</table>
**Economic analysis**

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>n of discharges</td>
<td>303</td>
<td>347</td>
<td>441</td>
<td>444</td>
<td>385</td>
<td>394</td>
<td>444</td>
<td>432</td>
<td>422</td>
<td>559</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative costs</td>
<td>14.900,00</td>
<td>14.900,00</td>
<td>14.900,00</td>
<td>14.900,00</td>
<td>14.900,00</td>
<td>18.625,00</td>
<td>18.625,00</td>
<td>18.625,00</td>
<td>18.625,00</td>
<td>18.625,00</td>
</tr>
<tr>
<td>Nurse costs</td>
<td>110.843,00</td>
<td>110.843,00</td>
<td>110.843,00</td>
<td>128.954,60</td>
<td>128.954,60</td>
<td>165.177,80</td>
<td>188.360,65</td>
<td>188.360,65</td>
<td>188.360,65</td>
<td>188.360,65</td>
</tr>
<tr>
<td>Physician costs</td>
<td>59.441,36</td>
<td>59.441,36</td>
<td>59.441,36</td>
<td>59.441,36</td>
<td>59.441,36</td>
<td>74.301,70</td>
<td>74.301,70</td>
<td>74.301,70</td>
<td>74.301,70</td>
<td>74.301,70</td>
</tr>
<tr>
<td>Drug costs</td>
<td>13.594,03</td>
<td>16.195,27</td>
<td>35.327,80</td>
<td>39.293,31</td>
<td>40.481,25</td>
<td>36.262,29</td>
<td>64.210,94</td>
<td>44.626,84</td>
<td>37.711,31</td>
<td>63.098,97</td>
</tr>
<tr>
<td>Consumables</td>
<td>711,77</td>
<td>1.298,76</td>
<td>1.736,28</td>
<td>2.619,59</td>
<td>4.204,01</td>
<td>1.477,61</td>
<td>4.938,88</td>
<td>2.744,10</td>
<td>2.480,01</td>
<td>3.602,14</td>
</tr>
<tr>
<td><strong>Total cost</strong></td>
<td>210.212,59</td>
<td>214.740,07</td>
<td>235.907,08</td>
<td>264.798,28</td>
<td>263.799,89</td>
<td>289.016,33</td>
<td>358.887,63</td>
<td>337.840,93</td>
<td>331.335,27</td>
<td>358.664,96</td>
</tr>
<tr>
<td><strong>Total reimbursement</strong></td>
<td>295.225,02</td>
<td>340.802,58</td>
<td>439.200,72</td>
<td>438.105,90</td>
<td>384.033,65</td>
<td>372.846,14</td>
<td>397.450,20</td>
<td>379.167,60</td>
<td>379.167,60</td>
<td>392.817,60</td>
</tr>
<tr>
<td><strong>Net cost of the program</strong></td>
<td>85012,43</td>
<td>126062,51</td>
<td>203293,64</td>
<td>173307,62</td>
<td>120233,76</td>
<td>83829,81</td>
<td>38562,57</td>
<td>41326,67</td>
<td>47832,33</td>
<td>34152,64</td>
</tr>
</tbody>
</table>
Different sources of information
Assessment of home hospitalization and early discharge at the Hospital Clinic of Barcelona

- **Safe and effective** – for acute and chronic patients. Average savings of 5 inhospital days per patient. Early readmissions 10%; mortality 0.3% during admission and 2% at 30 days post-discharge. Increased complexity over time with identical outcomes.

- **Synergies** – High potential for coordination with other integrated care services for chronic patients.
  - High degree of satisfaction of both patients and families.
  - Initial resistance in hospital staff and primary care professionals that decreased through the implementation period.

- **Sustainability** – Cost reduction at health system level and acceptable balance for the provider.
Assessment of home hospitalization and early discharge at the Hospital Clinic of Barcelona

Contributions

✓ Safe and cost-effective alternative to conventional hospitalization for properly assessed patients
✓ It requires highly prepared personnel
✓ The building blocks strategy for deployment allowed increase of complexity over time
✓ It should be considered in the portfolio of integrated care because of its potential for synergies with other services

Strengths and limitations

✓ Development and assessment as a real world service
✓ Low level of academic evidence because of the study design

Future areas of development

✓ Generalization and expansion of the service
✓ Adaptation to community based integrated care services
✓ Innovation of the service at tertiary hospital level
✓ Implementation of reimbursement modalities generating incentives
✓ Consolidation of HH/ED as the first choice service to be considered for most of the patients admitted in the Emergency Department.

✓ The service has increased the initial average of 12 beds per day during the study period to 36 beds per day in 2016 and 48 in 2018.

✓ The current HH/ED is active on a 24x7 basis over the entire year with economic incentives that ensure sustainability of the service.

✓ The current reimbursement of the HH/ED stays are equivalent to those of the in-hospital stays.

✓ We also identified the need for appropriately designed transitional care.
Transitional Care

Patients with complex medical conditions
Transitional Care

Transitional care – range of time limited services and environments that complement others interventions and are designed to ensure health care continuity and avoid preventable poor outcomes among at risk populations as they move from one level of care to another, among multiple providers and across settings.
Transition can be challenging

RAUL'S DIFFICULT TRANSITION INTO THE WIRELESS AGE
IMPROVING TRANSITIONS AND REDUCING

AVOIDABLE REHOSPITALIZATIONS

CARE IS LOCATION OR
PROCESS-CENTERED
- NOT PATIENT-
CENTERED

FREQUENT COSTLY
AVOIDABLE

INPATIENT
HOME
COMM. CARE
SPEC. CARE
OUTPAT. CARE

THE PATIENT
THE SPECTRUM OF CARE

THE BILLION DOLLAR U-TURN

HEALTHCARE REFORM PROVISIONS

1% PENALTY ON ALL CMS PAYMENTS FOR POOR PERFORMANCE

EXECUTIVE LEADERS

WHAT ARE THE HIGH-LEVERAGE CHANGES?

PROPERTIES? METRICS?

WHAT INFO DOES A PROVIDER NEED?

COMPREHENSIVE PICTURE

THE SKIN EFFECT

VARYING DEGREES OF WILL

STRATEGIC GOAL

PENALTY AUDITANCE

WATCH AND WAIT

HOSPITALS
PHYSICIANS
AGENCIES ON AGING

HOME CARE
NURSING FAC.

LEADERSHIP

SYSTEMIC BARRIERS

FINANCIAL INCENTIVES

WHAT ARE THE
HIGH-LEVERAGE
CHANGES?

WHICH ONES
ARE SCALABLE?

CRISIS = DANGER + OPPORTUNITY

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SYSTEMIC BARRIERS

FINANCIAL INCENTIVES

WHAT ARE THE
HIGH-LEVERAGE
CHANGES?

WHICH ONES
ARE SCALABLE?
There are No “Silver or Magic Bullets”!

The meaning of fragility and Complexity are unclear
**Objective** - Analysis of effectiveness of the service provided by the community teams

**Design** – Randomized Controlled Trial (1:1) in frail COPD patients with high hospitalization risk (n=155)

**Area** - Barcelona - Esquerra

**Intervention** – Integrated care with remote support of specialized nurses. Active follow-up during 12 months and passive during 6 years

**Target variables** – Hospital admissions, emergency department visits mortality

<table>
<thead>
<tr>
<th>Event</th>
<th>OR* (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital admissions due to exacerbations</td>
<td>2.17 (0.60-7.87)</td>
<td>0.237</td>
</tr>
</tbody>
</table>

**No reduction in the number of hospitalizations**

<table>
<thead>
<tr>
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<th>OR* (95% CI)</th>
<th>p-value</th>
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<tbody>
<tr>
<td>Emergency room admissions due to exacerbations</td>
<td>0.33 (0.13-0.84)</td>
<td>0.020</td>
</tr>
<tr>
<td>Mortality by all-causes</td>
<td>HR* (95% CI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.36 (0.14-0.93)</td>
<td>0.034</td>
</tr>
</tbody>
</table>

* Adjusted for baseline differences between UC and IC group (influenza and pneumococcal vaccination)

**Reduction of visits to the Emergency Department and reduced mortality**

Improvement in self management of the disease and quality of life (p=0.02). Reduction of anxiety and depression (p=0.001) and major satisfaction of the patients (p=0.02) at 12 months
Contributions

- Displayed the problems for generalization of RCT results
- Identified two key factors for a successful deployment at community level:
  - Preparation of health professionals
  - Prediction of individual risk and patient stratification

Strengths and limitations

- High level of evidence – RCT
- Highly representative study group
- Problems of generalization shown by RCTs

Future areas of development

- Development of risk prediction and stratification tools
- Implement innovative strategies for workforce preparation
YOU CAN DO ANYTHING, BUT NOT EVERYTHING.

- David Allen

“ALONE WE CAN DO SO LITTLE; TOGETHER WE CAN DO SO MUCH.”

- Helen Keller
Areas for improvement

- Service evaluation
- Risk assessment/stratification and service selection
- Service workflow definition and execution

Which services are more efficient and which are the most interesting in the right term?

Siu, AL, et al. Health Aff (Millwood), 2009; 28: 113–125. 28/1/113 [pii]. DOI: https://doi.org/10.1377/hlthaff.28.1.113;
A new Vision
Agenda

- Lessons learnt from deployment of Integrated Care.
  - Home Hospitalization
  - Transitional Care
- Adaptive case management strategies
- The Nextcare project
✓ Planning at run-time is a fundamental characteristic of case management using well-structured service flows. This implies the selection and scheduling of specific tasks for a case, and ad-hoc collaboration with other case managers on the task.

✓ Decisions may be triggered by expected and unexpected events or new facts, such as completion of certain tasks or milestones or emergency room entry.

Cooperation between levels of care and services providers

The RIGHT patient, the RIGHT therapy, the RIGHT time and the RIGHT professionals

Needs to be delivered every time and something has to change.
Please, get to know the patient better

- Socio-demographic characteristics
- Health care team and system-related factors
- Chronic conditions
- Risk factors and treatment
- Patient’s dependence factors

Goal-Oriented Patient Care — An Alternative Health. Outcomes Paradigm David B. Reuben, M.D., and Mary E. Tinetti, M.D.

Therapeutic Educational Program (APRENEPLOC)

Walks that heal/patients like you
- Inform, orient and respond
- Make work of SEPAR known to the patient
- Improve relationships between HCPs and patients
- Enhance social impact by dissemination of problems that motivate patient's health care and improve their lives
Patients’ Congress
300 registrations
Continuous education
Continuous evaluation

Health status
- Survival
- Improvement rate (or conservation)

Recovery
- Recovery time
- Time to get back to “normal life”

Health maintenance
- Relapses
- Long-term consequences

Value = \frac{Outcomes}{Cost}

IF "Plan A" Didn't Work. The alphabet has 25 more letters! Stay Cool.
Agenda

- Lessons learnt from deployment of Integrated Care.
  - Home Hospitalization
  - Transitional Care
- Adaptive case management strategies
- The Nextcare project
Regional deployment of ICT-supported integrated care services

design, evaluation and large scale implementation of five actions aiming at generating healthcare-value at system level

Multimorbidity
(cardiovascular diseases; COPD; diabetes type II and anxiety-depression)

www.nextcarecat.cat
NEXTCARE
(clustering of CVD, COPD and T2DM-metabolic syndrome)
Service implementation – case study 1 (CCP)


Isaac Cano et al.
Innovation contest