Clinical Leadership in times of Digitality

How eHealth and Clinical Leadership need each other

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New Clinical Leadership is needed for Digitality (era after the so called Digital Transformation)

- Understands ambiguity
- Understands complex adaptive systems
- Understands difference of focusing on service rather than process
- Manages inter-human relationship and man-machine interaction
- Manages Health anticipation action
- Manages Data as source of medical science
- Leads through innovation not experience
- Leads patients not colleagues
- Leads data autonomous analytics
Aims for Health Care Delivery System

- Equitable
- Safe
- Effective
- Patient-Centered
- Timely
- Efficient

*IOM: Crossing the Quality Chasm*, 2001
Citizen in the center of Health System

+ age + tech + Knowledge
**Patient Portal:**
Personal Health Record
Authorizations
Audit

**International Portal:**
Enable the epSOS pilot to serve as electronic patient’s summary review for professionals.

**Professional Portal:**
Provide professionals with access to patient clinical data stored in servers and records from different institutions.

**Institutional Portal:**
Provide statistics from anonymised clinical data to central institutions.
In Portuguese NHS you can call

491 Primary Care Institutions

76 Hospitals
The Professional Portal has been visualized by more than 50,000 professionals, integrates around 600 databases and...
99%
Paperless Prescription
Country wide
### Patient Summary

- Allergies and adverse reactions

### Prescriptions

- Update chronic medication

### Drug Information

- Historical Prescriptions (with dispense information)

### Local System: Health Patient Record

- All to Clinical recommendations
- Prescription alerts
- Historical Prescriptions

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**ePrescription/eDispensation**

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### Local System: Health Patient Record

- Patient Record

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**ePrescription/eDispensation**
ABOUT ~200,000 Request messages from eP/eD system to Pat Summary System to check for Drug Allergies (collected structured in SNOMED terms from over 400 DBs) and with about 6000 positive returns.
New Page tomorrow – www.ctc.min-saude.pt
Portuguese Catalogue of Allergies and Other Adverse Events (v2.0)

- Structured registry about Allergies in PT EHR (2012)
- Implemented in PT NHS
- National code system - CPARA codes

Portuguese Catalogue of Allergies and Other Adverse Events (v3.0)

- Update of the catalogue
- International Standard: SNOMED CT, translated to PT
- Promotion and Implementation in PT Health System
Data registered on the Patient Portal that can be shared with healthcare professionals:

Emergency contacts; Health information:

<table>
<thead>
<tr>
<th>Identificação</th>
<th>Episódios de Saúde</th>
<th>Questionário de Saúde</th>
<th>Calendário</th>
<th>Comprovativo de Presença</th>
<th>Benefício SNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contactos de Emergência</td>
<td>O Meu Resumo</td>
<td>Calculadora de Risco</td>
<td>SIGA Consultas</td>
<td>Pesquisa Prestadores</td>
<td></td>
</tr>
<tr>
<td>Agrupado Familiar</td>
<td>Allergias</td>
<td>Modificações</td>
<td>Marcações</td>
<td>Mobilidade de Doenças</td>
<td></td>
</tr>
<tr>
<td>Autorizações</td>
<td>Doenças</td>
<td>Boletim Infantil e Juvenil</td>
<td>Livra Acesso e Circulação</td>
<td>Isoncia Taxas</td>
<td></td>
</tr>
<tr>
<td>Histórico de Acessos</td>
<td>Cirurgias</td>
<td>Boletim de Vacinas</td>
<td>SIGA Cirurgias</td>
<td>Moderadores</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medicação</td>
<td></td>
<td>Consulta da Lista de Inscritos para Cirurgias</td>
<td>Contacto com a Unidade de Saúde</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vacinas</td>
<td></td>
<td>Receita Sem Papel</td>
<td>Links Úteis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doenças Raras</td>
<td></td>
<td>Guia de Tratamento</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testamento Vital</td>
<td></td>
<td>Prescrição de Medicação Crónica</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Documentos</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Online appointment of medical consultations for primary care facilities of the NHS and online ordering of chronic medication;
• Request the remission of user charges regarding NHS services provided;
• Integrated Personal Health Record. Manage and share with GP’s: emergency contacts, Health information, medication; allergies and Biometrics Monitoring);
• Personal Vital Will;
Avaliação de Risco da Diabetes Tipo 2

A Calculadora de Risco da Diabetes é um método muito simples que avalia os riscos e alerta para alterações no seu estilo de vida, podendo contribuir para reduzir esses riscos. Faça o seu teste. Promova a sua saúde!

<table>
<thead>
<tr>
<th>CATEGORIAS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baixo</td>
<td>8.853</td>
</tr>
<tr>
<td>Ligeiro</td>
<td>5.737</td>
</tr>
<tr>
<td>Moderado</td>
<td>2.967</td>
</tr>
<tr>
<td>Alto</td>
<td>2.016</td>
</tr>
<tr>
<td>Muito Alto</td>
<td>427</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>20.000</td>
</tr>
</tbody>
</table>

Tem em conta o resultado que obteve na Calculadora de Risco de Diabetes Tipo II, solicitamos autorização para partilhar estes dados com o seu Centro de Saúde para que possamos agendar uma consulta. Se concordar, será contactado pelo Centro de Saúde para informar a data de sua consulta.

Em caso de dúvida ou pedido de esclarecimento adicional, contacte o Centro de Suporte, através do número +351 220 129 817

CATEGORIAS | TOTAL
-----------|-------
Baixo      | 8.853 |
Ligeiro    | 5.737 |
Moderado   | 2.967 |
Alto       | 2.016 |
Muito Alto | 427   |
**Total:** | 20.000 |
Mobile Vision

All interaction between humans and computers is likely to have to occur in an environment characterized by some degree of time-space and social mobility, while on the other side, health information about patients and care processes need to be ubiquity made available, including in wearables and implantable devices.

Driving principles regarding Health Apps

TO BE REVISED with EU documents of today
MySNS App Family
Lançamento MySNS 1.0
6 setembro
2016

14 setembro
Update MySNS Tempos 2.0
2016

20 janeiro
Lançamento MySNS Carteira (beta)
2017

Major update MySNS 1.1
14 setembro
2016
MySNS

information and notifications, including Public Health warnings in real time.

MYSNS, A APP PARA O CIDADÃO
LIGAÇÃO MÓVEL AO SNS
**MySNS - Times**

*Information about location and waiting times for emergency care in public hospital (NHS) in real time.*
MySNS – Wallet: Your Patient Summary in your pocket
1. **Portability** – the Patient Summary and additional relevant Health information directly in the Citizen’s possession.

2. **Tailoring** – the Citizen can choose what information is relevant for him, download only those cards, delete them or add new ones when he wants.
The role of ICT in the modernisation of Public Health Services

PORTUGUESE EXPERIENCES IN e-GOVERNMENT

MySNS – Wallet: ePrescription

![Image of ePrescription system](image-url)
All2All Vision

- Connecting all professionals to all citizens at all times
New health Private Network 4th generation
Getting all NHS professionals on the cloud

OFFICE 365
At all institutions of the Portuguese NHS
Citizen Connection services

new generation CONTACT CENTER FOR THE NHS

and

NATIONAL CENTER FOR TELEHEALTH
PDS Live
Telemedicine - basic principles

- Total Mobility:
  - All medical offices/All Professionals/All Patient
- Multiplatform / Multidevice
- Independence suppliers
- No external maintenance costs

TeleConsultation collaborative report generation that is integrated, automatically, on the patient electronic health record
Open Data

DATA | GRAPHICAL ANALYSE

Launch Date: 1 February 2016

https://www.sns.gov.pt/transparencia/

- Assistance Hospital Activity
- Financial Information
- Primary Health Services
- Vaccines
- Transfusions
- Medicines
- Human Resources

Datasets (National, Region, Entity)

86 datasets
785 indicators

Responsibilities
Public Data
Benchmarking
Transparency
Data Catalog

Data organized by catalog and filters (Entity, Keyword and Theme)
Georeferencing Data

Vaccine Administration in Primary Health Care

1,570 records
Sem filtros ativos.
Filtros

Date
2016 165
2015 705
2014 700

Region
ARS Norte 681
ARS Lisboa e Vale do Tejo 434
ARS Centro 286
ARS Alentejo 108
ARS Algarve 81

Entity
ACES Alentejo Central 27
ACES Alentejo Litoral 27
ACES Algarve I - Algarve Central 27
ACES Algarve II - Algarve 27
Bariavento
ACES Algarve III - Algarve 27
Sotavento
ACES Alto Ave - Guimarães, 27
Vizela e Terras de Basto
> Mais

Vaccine Administration by ACES
API

This dataset can be consumed via an API that allows to search and download records using various criteria exposed in the console below. Take a look at the API documentation and use the full API console to try the other API services!

Using features by other applications
The New Normal – Who are we?

Source: introducing the new normal, Peter Hinssen
Medical Decision-Making Mushroom

Experience
- Technology
  - Scientific
  - Practical
  - Data
  - Constraints

Ethics/Values
- Political
- Context
- Emotions

Decision
Boundary Spanning...
<table>
<thead>
<tr>
<th>The doctor</th>
<th>The manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused on the individual patient</td>
<td>Focused on population groups and government agenda</td>
</tr>
<tr>
<td>Will not be primarily concerned with costs</td>
<td>Focused on treatment efficiently delivered within allocated resources</td>
</tr>
<tr>
<td>Has face-to-face contact with patients and families</td>
<td>Rarely meets patients or families</td>
</tr>
<tr>
<td>Expected to solve all presenting problems</td>
<td>Has to choose which problems to tackle</td>
</tr>
<tr>
<td>Has learnt to be independent and competitive</td>
<td>Expects to share responsibility with others</td>
</tr>
<tr>
<td>Trained to emphasise the scientific approach</td>
<td>Has to remember political factors and human motivations</td>
</tr>
<tr>
<td>Expects problems to have solutions</td>
<td>Expects to have to tolerate many insoluble problems</td>
</tr>
<tr>
<td>Expects to stay with the same trust for whole career and has job security</td>
<td>Has to move to gain promotion or because of redundancy</td>
</tr>
<tr>
<td>High social status and professional freedom</td>
<td>Medium social status and subject to bosses</td>
</tr>
</tbody>
</table>
**Doctors need managers**
To resolve complexity of the working environment, which needs managing
To help them with unrealistic expectations
To mediate with the state
To set boundaries of care
To act as repositories of negative comments from patients and to deal with complaints against the omnipotence of doctors
To have an overview of the needs of the whole service and not be influenced by parochial needs or those of the most powerful and influential
To get the resources that are required to deliver the service
To help them understand networking and committee skills

**Managers need doctors**
Doctors are the vehicle of the ‘health delivery product’
To ground them in the human and clinical reality of patient care
To translate government policy into clinical reality
To recognise where boundaries are ineffective, unrealistic or inhumane
To contain their anxiety in certain situations
To inform them about the clinical realities in order to decide on apportionment of resources
To use resources effectively and efficiently
To communicate evidence-based clinical practice based on sound scientific principles
B spanner’s Role

- creating internal and external networks;
- issue identification;
- translating the knowledge back into the organizational culture;
- influencing and educating internal and external stakeholders;
- creating buy-in and support;
- identifying internal senior-level champions.
B spanner’s Skills Set

ability to crunch a plethora of verbal and non-verbal communication and information, identifying the critical and relevant information, the opportunities and the risks associated with the potential collaboration, translating the information and influencing internal audiences and creating a strategy for implementation

breadth of intellectual expertise,
the wealth of social contacts
the personality traits necessary to be accepted by vastly different groups

... Corporate life may not be particularly friendly to the boundary spanner, who has to spend a lot of time developing an external network

IT'S LONELY AT THE TOP
Negotiated enterprise
Mutual accountability
Interpretations
Rhythms
Local response

Joint enterprise

Mutual engagement
Engaged diversity
Doing things together
Relationships
Social complexity
Community maintenance

“Communities of Practice”
- E Wenger

Shared repertoire
Stories
Artefacts
Actions
Discourses
Concepts

Styles
Tools
Historical events
Tempered Radicals...

**New Network Leaders**

demonstrate accountability for their decisions and actions, concern with sustainability and cooperation, a desire to bring people together across traditional boundaries and effectiveness in convincing others to work together for a common purpose, and to build lasting working relationships.

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Changing models of leadership
A solução está na partilha!

Obrigado