

# C3CLOUD

A FEDERATED COLLABORATIVE CARE AND CURE CLOUD  
ARCHITECTURE FOR ADDRESSING THE NEEDS OF MULTI-  
MORBIDITY AND MANAGING POLY-PHARMACY

## Benefits and challenges of patient empowerment platforms

Pontus Lindman



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**MEDIXINE**

# WHO AM I



- Senior consultant at Medixine, active in the eHealth industry for two decades delivering solutions across all Europe.
- In C3-Cloud work package 5 (Patient Empowerment Platform) leader and consortium Innovation Manager.

# Medixine

## Experience

15 years of experience in 10 countries and over 300.000 patients **before** creating the Medixine Suite product.



A mature solution that is immediately usable and scalable



Higher  
quality  
of care

Lower  
costs

Higher  
productivity

## Comprehensiveness

Includes all functionalities needed from video visits to questionnaires, messaging and vital sign monitoring in one modular and scalable product.



No integration needs between modules. Uniform usability for professionals and patients.



Less  
integration  
projects

Less need  
for training

## Configurability

Supports any condition or disease, any culture or major language. Series of services can be configured to the same platform. Open APIs.

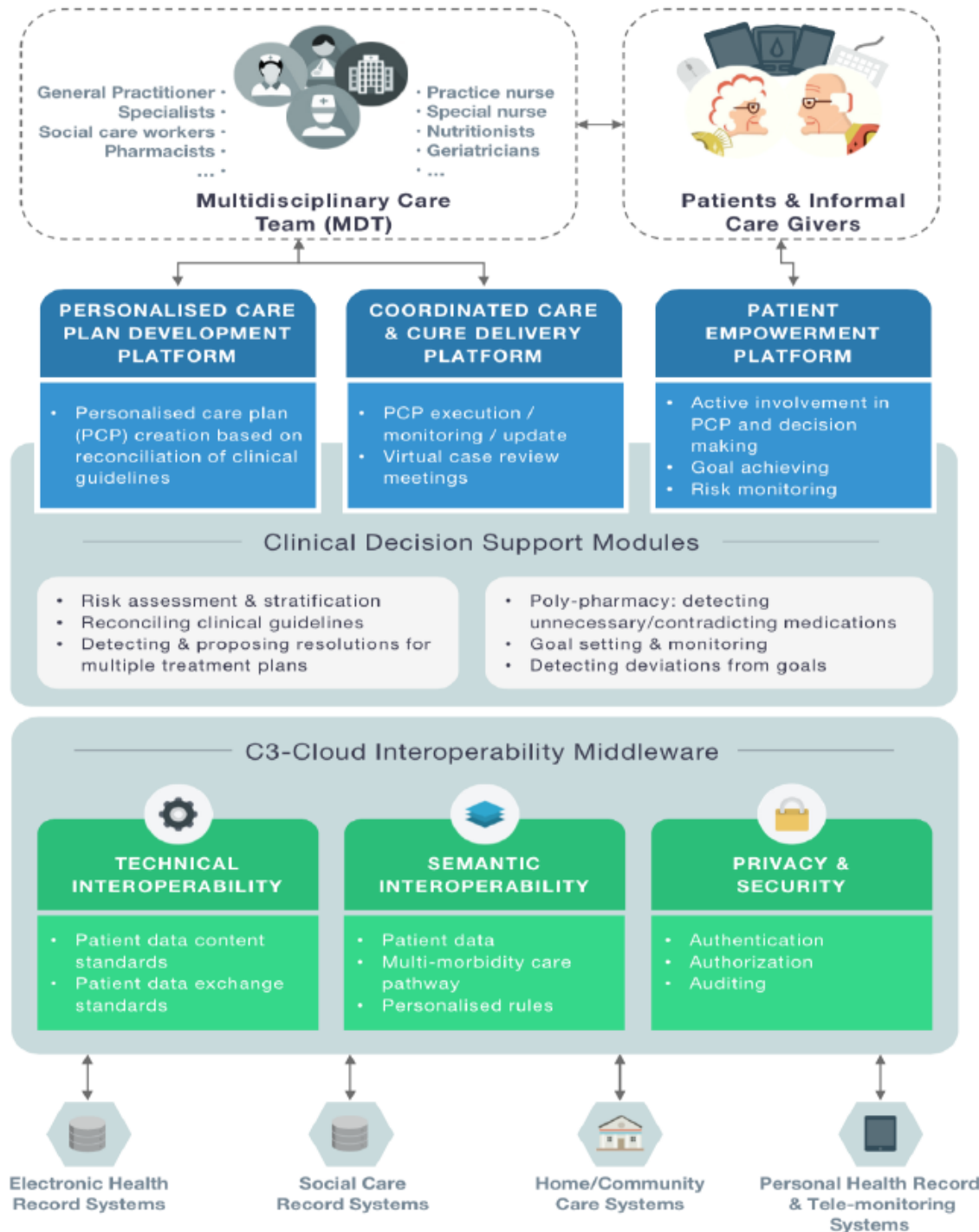


Easy to use, no integration between disease services needed. Deployable in many countries. No forced bundling of content and solution.



Less need for  
support

No  
maintenance  
projects



# C3-Cloud Overall Architecture

# Problem: Too many separate solutions



# Sample Solutions

## Diabetes



Medixine can help in the treatment and follow-up of all types of diabetes and diabetes patients. For example, our solution helps in managing the transition from oral medication to insulin in diabetes type II.

## Asthma



Asthma requires follow up of symptoms, medication and home measurements of peak flow. Our solution provides remote monitoring of medication and peak flow with day to day support of an asthma nurse.

## Psychiatry



Depression is one of the biggest challenges in today's healthcare for young adults. Our solution helps with efficient screening to find patients who are at risk.

## Hypertension



Medixine Suite provides all the components of a full hypertension management system. For example, we can manage confirming the diagnosis of hypertension for a patient in his active working age and monitoring of blood pressure in an elderly patient.

## Cancer



Cancer patients need to follow strict treatment regimens and need support and efficient communication during the process. Our solutions can help a breast cancer patient going through radiation therapy and sytostatic treatment.

## Occupational health



Prevention is the key in occupational health care. Use Medixine Suite solution for automatic screening of employees below the age of 30.

# KEY FEATURES OF PEP

## Share information

**Careplan**  
Updated at 10/07/2020 11:50 By Anna Svensson

**Activities**  
Activities you should do to achieve your goals.

- Avoid processed foods** (GENERAL)  
When: between 10/06/2020 and 10/07/2020
- Mediterranean diet with reduced sodium level and restricted potassium and phosphate intake** (GENERAL)  
When: after 27/04/2020
- Prescribe DPP4 inhibitor** (MEDICATION)  
When: 2 times a day from 10/07/2020
- Atorvastatin** (MEDICATION)  
When: Once a day from 02/04/1998
- Timolol** (MEDICATION)  
When: Once every 2 days from 15/08/1998
- Lisinopril** (MEDICATION)  
When: Once a day from 02/05/2001
- Iatanoprost** (MEDICATION)  
When: Once a day from 16/02/2004

**Goals**  
Goals and targets set by your care team.

- Keep blood pressure under control** [Feedback](#)

**Info**  
Information materials assigned to you to help you understand your conditions and increase your confidence to manage your health.

- 12 questions you should read before you see your doctor** [Feedback](#)  
<https://www.bnf.org.uk/heart-matters-magazine/medical-questions-to-ask-your-doctor>
- Living with Heart Failure** [Feedback](#)  
<https://www.bnf.org.uk/heart-health/living-with-a-heart-condition/living-with-heart-failure>
- Type 2 Diabetes** [Feedback](#)  
<https://patient.info/health/type-2-diabetes>
- ACE inhibitors** [Feedback](#)  
<https://patient.info/health/ace-inhibitors>
- 8 tips for living with multiple conditions** [Feedback](#)  
<https://www.bnf.org.uk/heart-matters-magazine/medical-8-tips-for-living-with-multiple-conditions>

## Communicate with the patient

Video appointment with Virta, Vilho

11/10/2015  
4:28 PM - 4:48 PM

Video appointment

Click the camera icon on the address bar to access camera and microphone settings.

Pause End meeting

## Collect data



## React to changes

**MEDIXINE** **ULITE** Admin

Dashboard My patients Cases Messages Chat Video appointments Tracking items

**Cases**

Unassigned

Search Show all Active + Add new case

Patient	Case	Action
Smith, John 073658-169V	Blood pressure - Absolute low - Limit exceeded Due date: 31/05/20	<a href="#">Assign to me</a>
	FEV - Baseline high - Limit exceeded Due date: 31/05/20	<a href="#">Assign to me</a>
	Blood pressure - Measurement missing Due date: 20/07/2020	<a href="#">Assign to me</a>
	Blood pressure - Measurement missing Due date: 31/05/20	<a href="#">Assign to me</a>

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# Sample Devices and Ecosystems



**BLOOD PRESSURE**  
Omron HEM 9210T



**SCALE**  
A&D UC-321PBT



**PULSE-OXIMETER**  
Nonin 3230



**ACTIVITY/PULSE/STRESS/SLEEP**  
Garmin watches



**SPIROMETER**  
Vitalograph asma-1



**THERMOMETER**  
A&D UT201 BLE



**GLUCOMETER**  
CareSens N Premier



**ACTIVITY/PULSE**  
Apple Watch



# Case Treatment follow-up

Patient discharged from hospital, monitoring of recovery and rehabilitation



Simple model

☐ Questionnaire

Monitoring model

☐ Questionnaire

Full model

☐ Questionnaire



Case Turku University Hospital, department of Surgery

# CHALLENGES AND SOLUTIONS

## Challenges:

- Dealing with differences in the patients' skills and knowledge.
- Risk of additional burden on health professionals if use not planned well.
- Risk of information overload if the care plan is large

## Some solutions and actions to mitigate these challenges:

- The integrated careplan to provide personalised information.
- Enabling loved ones to act on behalf of the patient who need it
- Centralised planning of organisational workflows and the content
- Give patients focused views with only minimum amount of information at one time

# THANK YOU



## Any questions?

