Paradigm Shift Through Digitization in Healthcare

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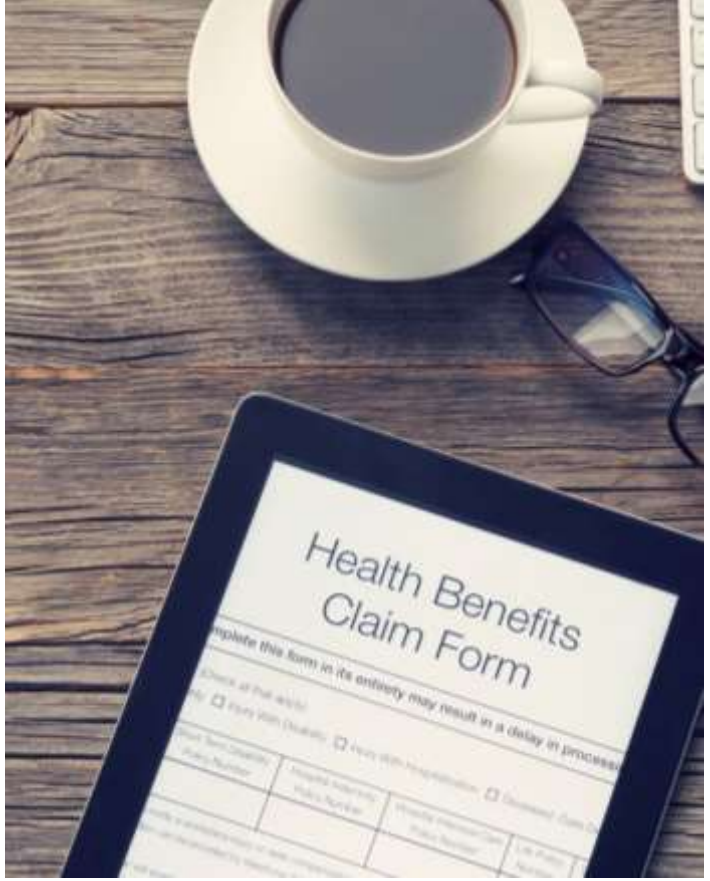
Industry Solutions
Health and Life Sciences, EMEA

Microsoft

Paradigm Shift –

an important change that happens when the usual way of thinking about or doing something is replaced by a new and different way

Transformation across the health industry is critical to achieving better outcomes around the world



Paradigm Shift

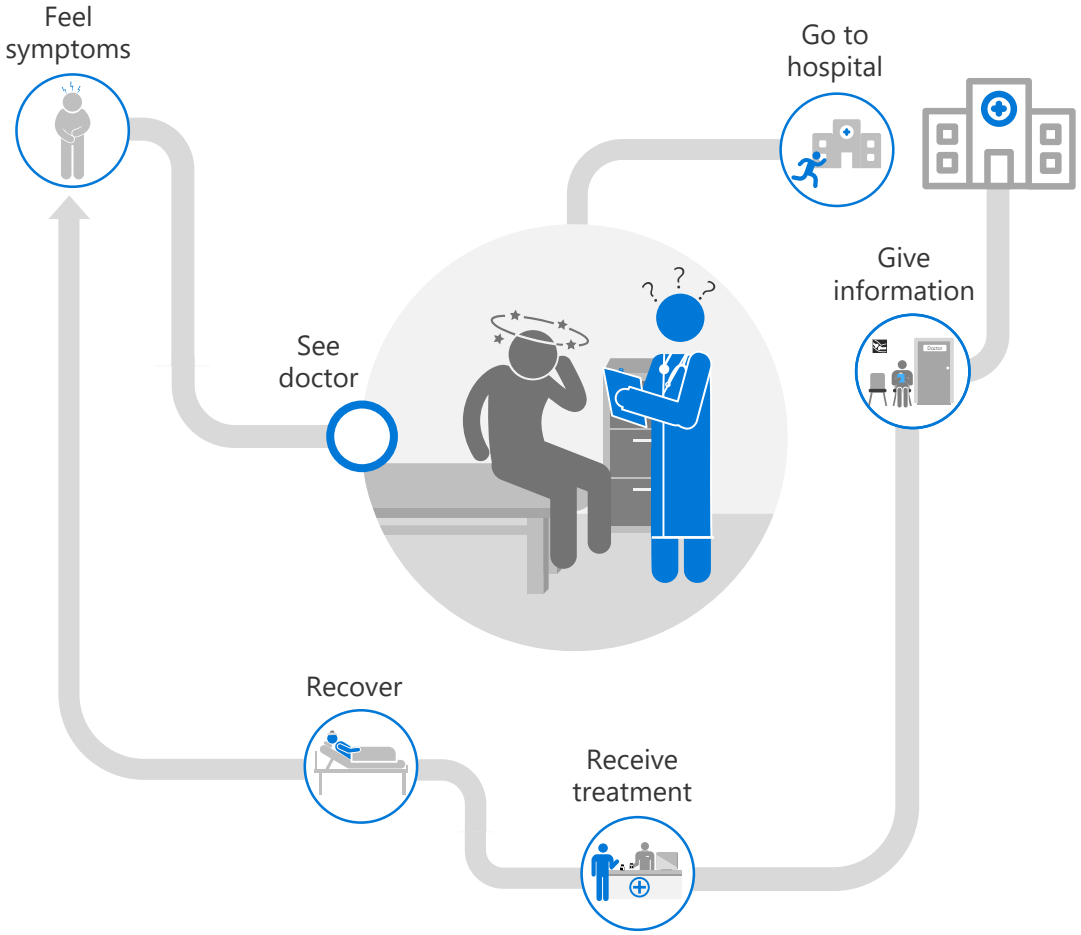
Systems of record

Systems of insight

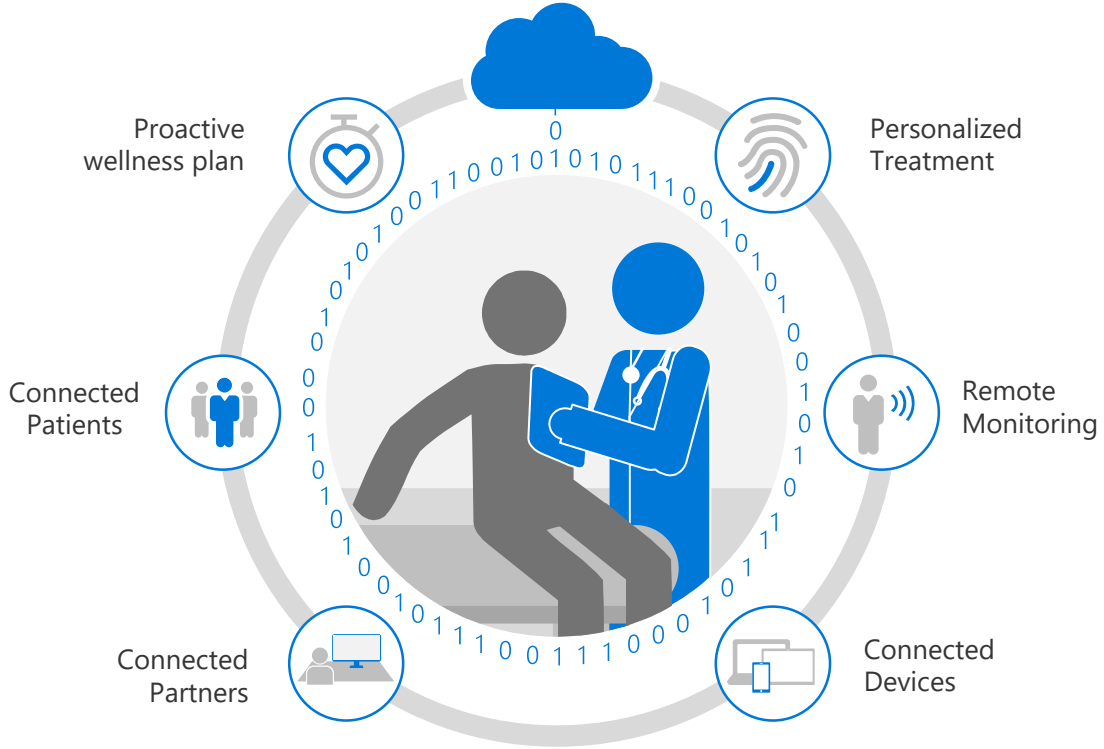
Systems of engagement

And move towards a patient-centric approach to health

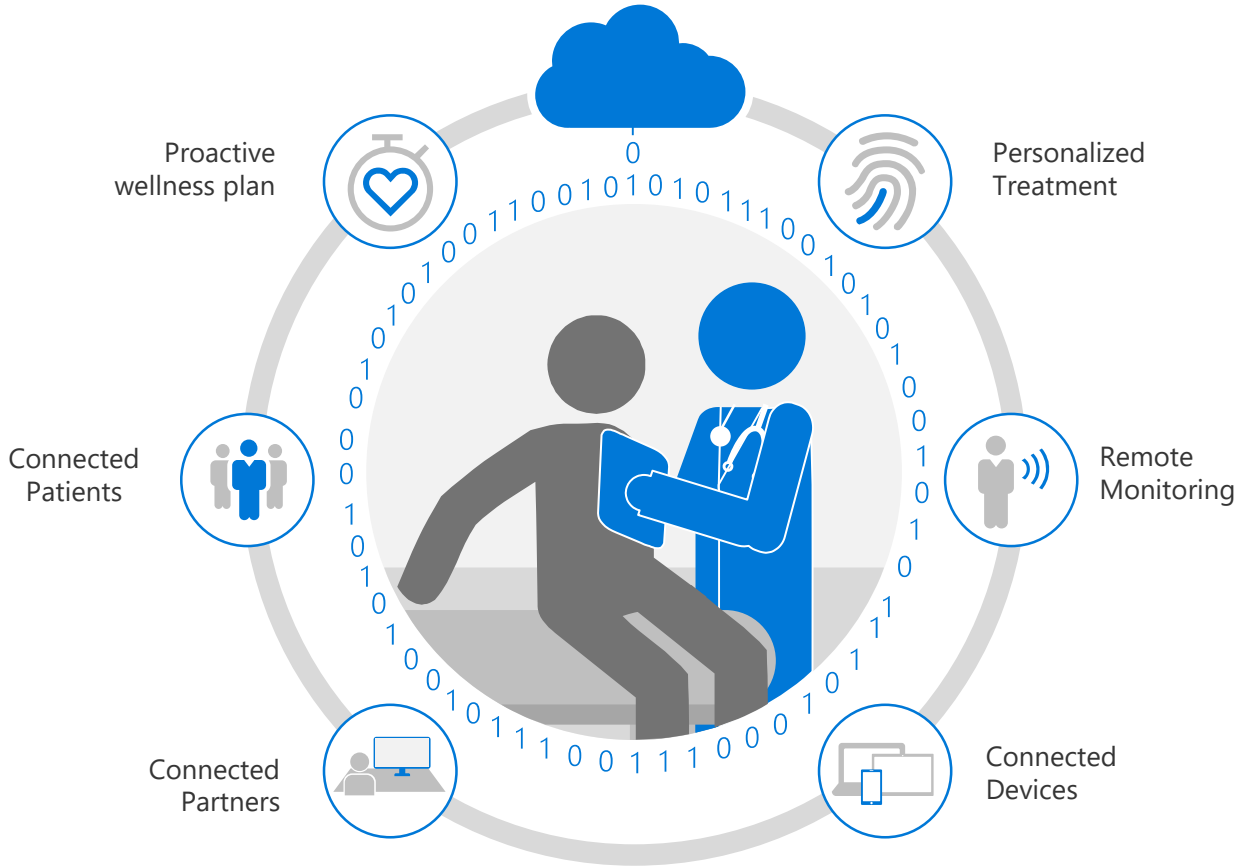
From a reactive, disconnected and cyclical process



To Intelligent Health: a continuous, collaborative approach that enables preventative care



And move towards a patient-centric approach to health



Engaging patients

Empower care teams and employees

Optimise clinical and operational effectiveness

Transform health

The evidence

TERVEYSKYLÄ.FI

Helsingin ja Uudenmaan sairaanhoitopiiri (HUS)

Services built around the citizen

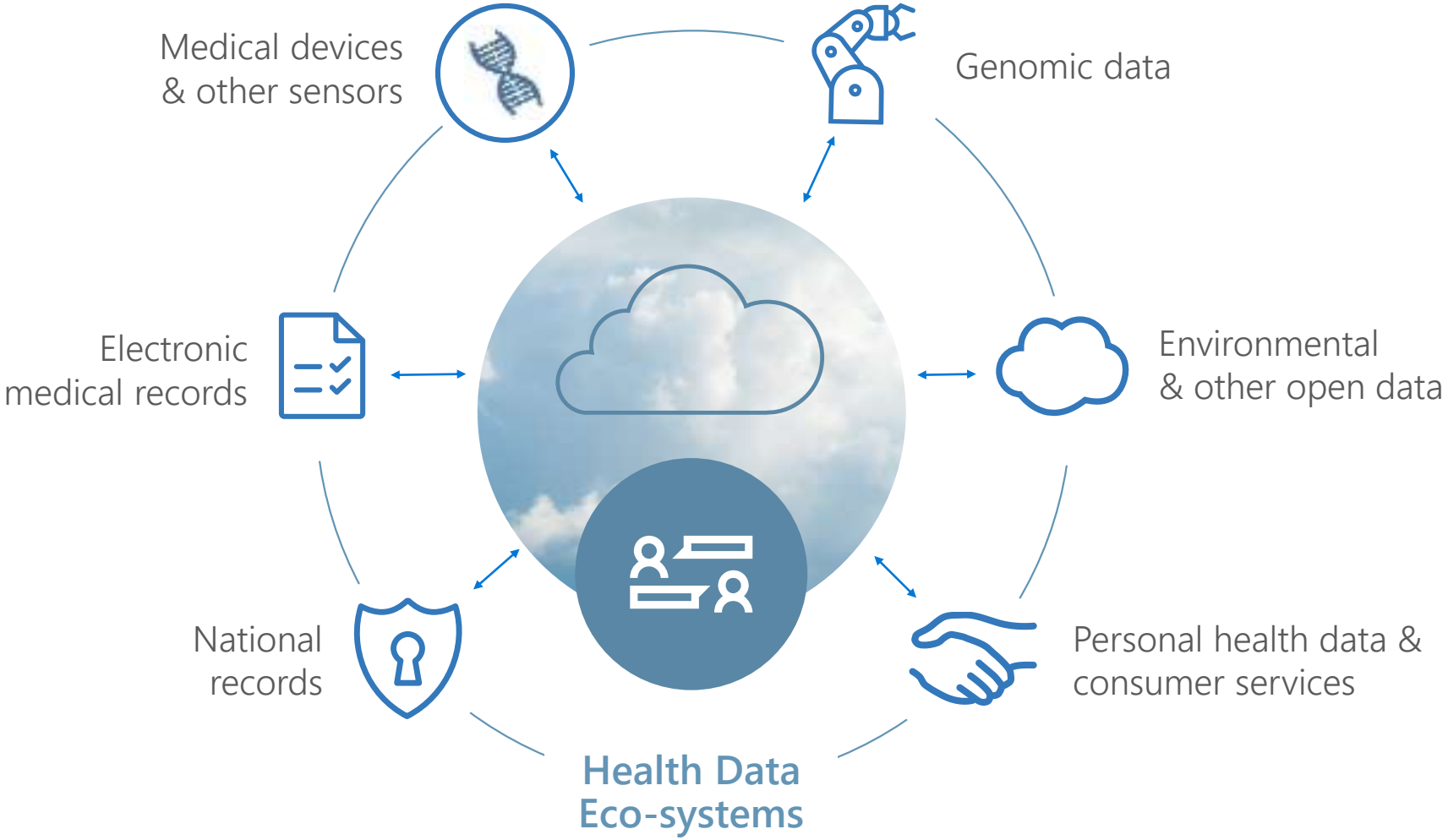
Outcome

Scalable platform to deliver multiple health services

Patient inclusion

Customer advocate

HUS pioneering in utilizing health and wellbeing data



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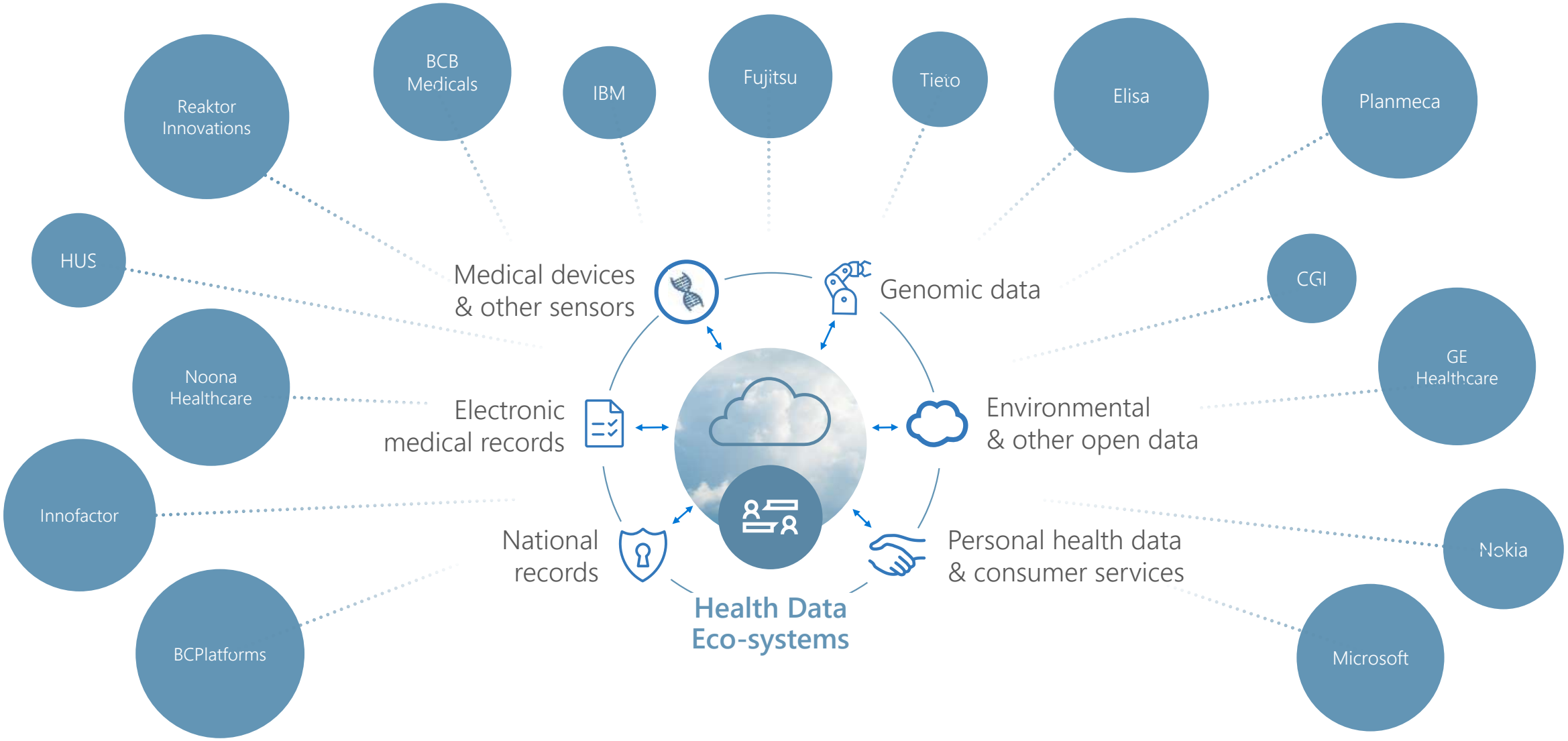


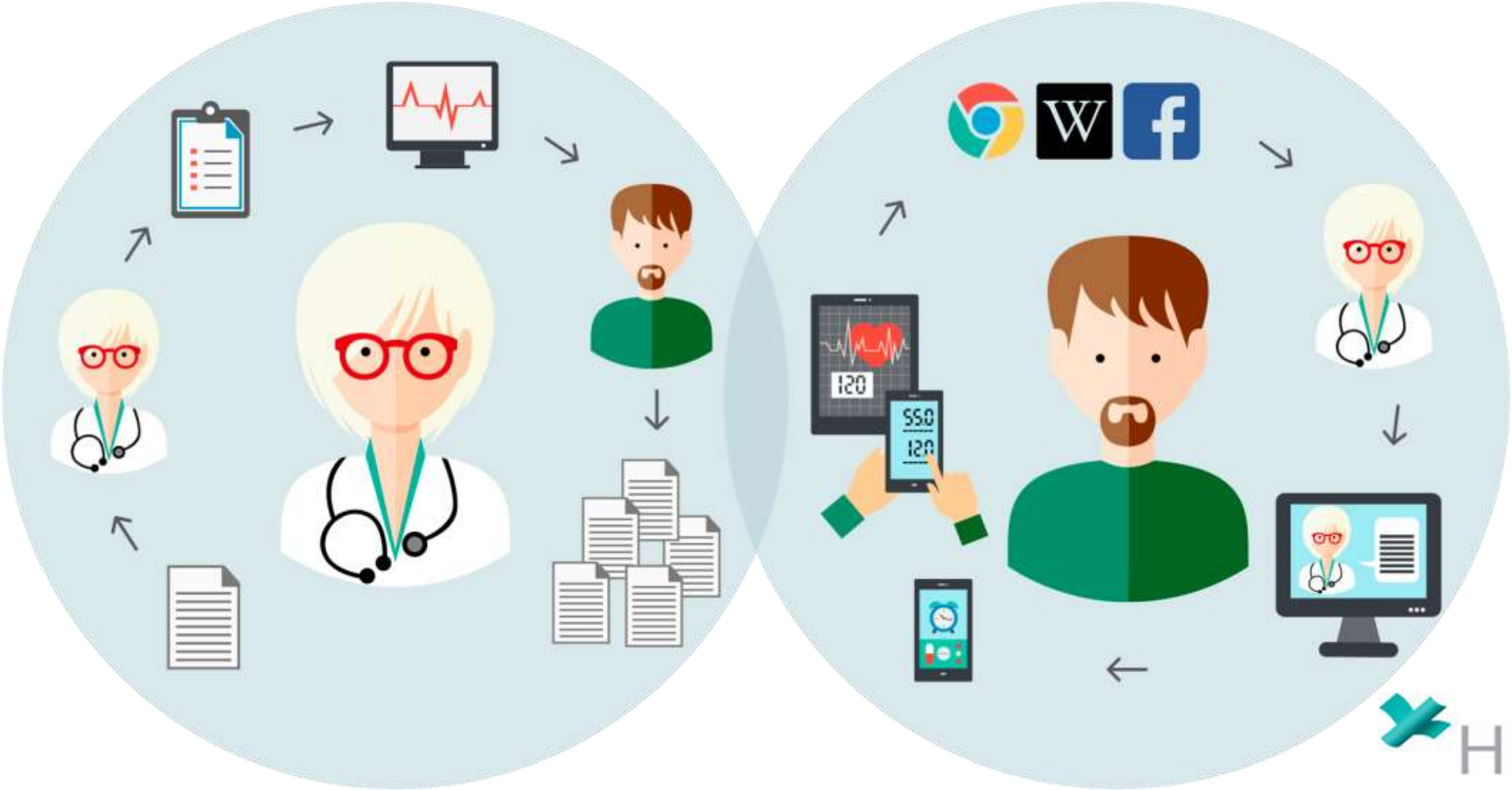
TERVEYSKYLÄ.FI

HUS

This Health Village

Our Services now

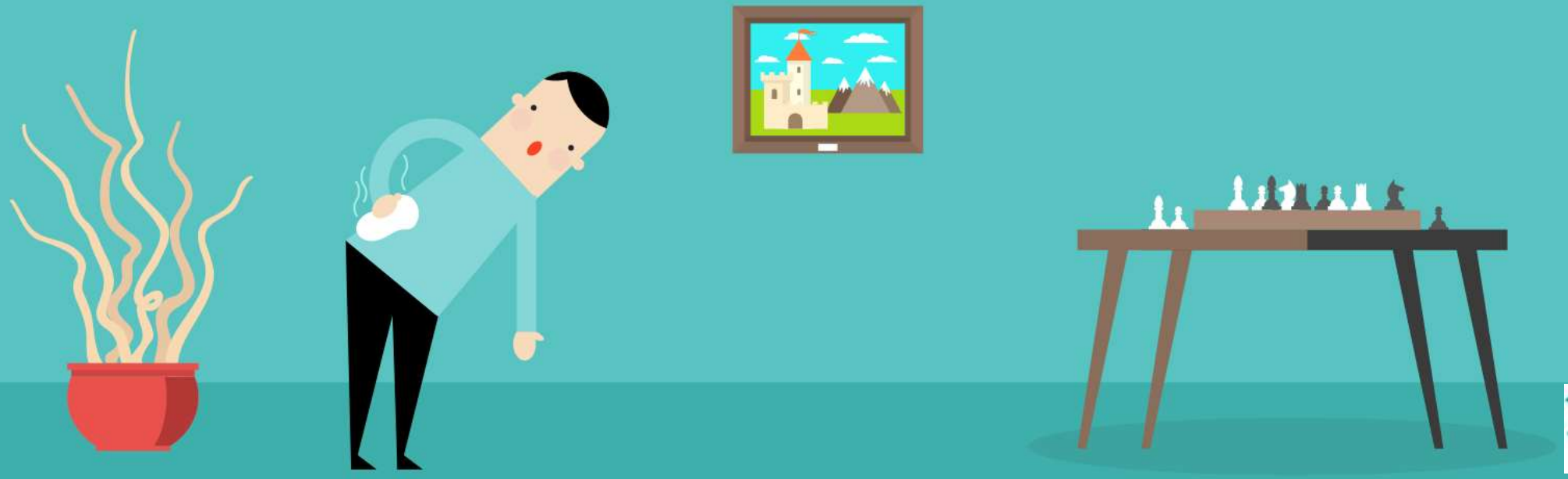
...and in the Future



HUS

TERVEYSKYLÄ.FI

The service comprises various themed virtual houses, some of which are already open. By the end of 2018, about 30 houses and services will be available for more than 40 groups of patients.



HUS

HEALTHVILLAGE.FI

HUS

Reliable service recommendations, advice, information, and care services provided for more than 40 patient groups through multiple channels

MentalHealthHouse.fi

WomensHub.fi

ChildrensHub.fi

PainManagementHub.fi

HealthyweightHub.fi

RehabilitationHub.fi

NeuroHub.fi

Vascular Hub

RareDiseaseHub.fi

PeerSupportHub.fi

InflammationHub.fi

SkinDeseaseHUb.fi

CancerCentre.fi

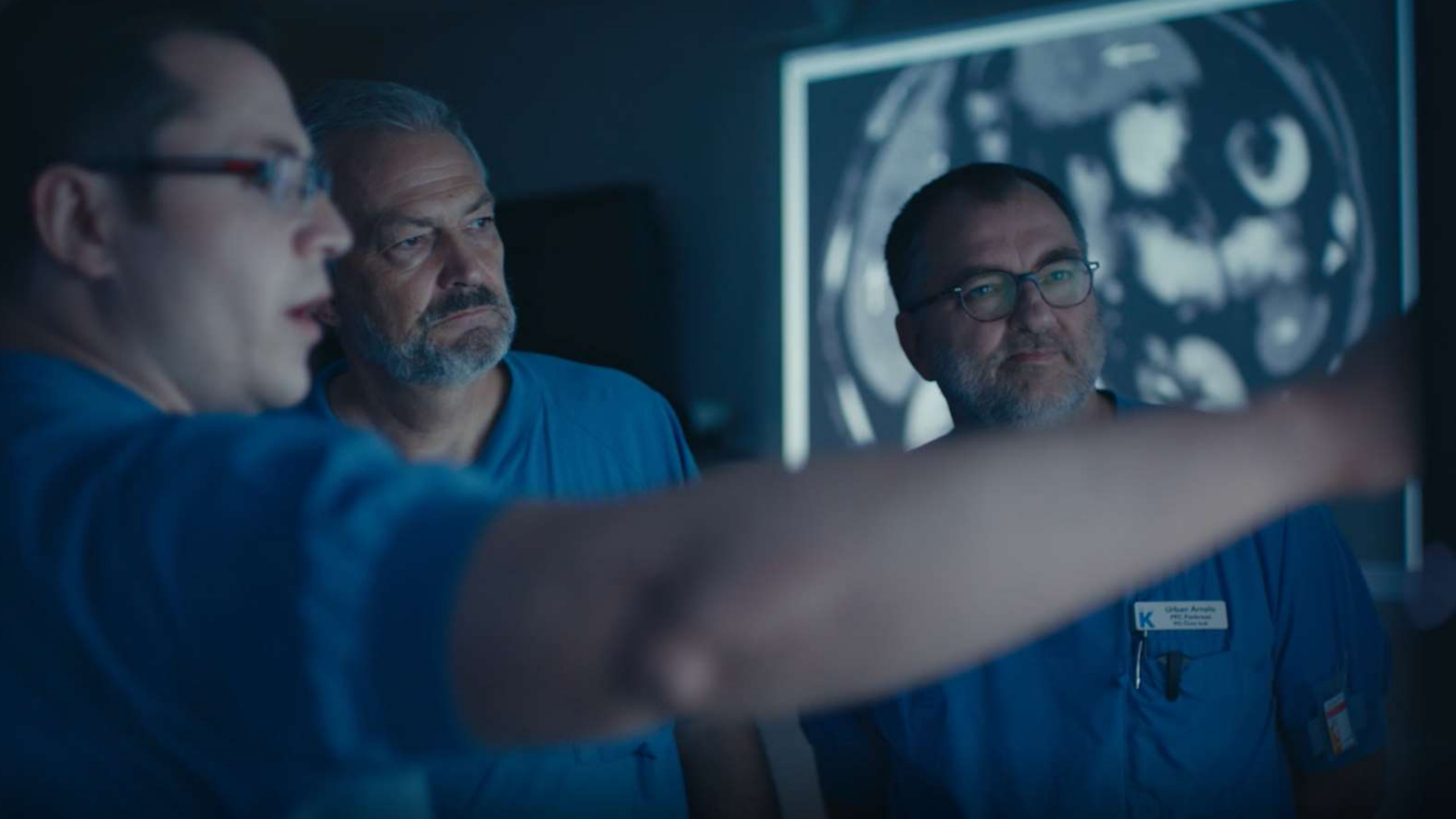
KAROLINSKA
Universitetssjukhuset

Karolinska University Hospital

An example of a successful collaboration

Outcome

Improved care team collaboration solution
Patient inclusion
Customer advocate


K

Search or type a command

Multi-disciplinary Conference > Tisdagskonferens (s) solid 2018-06-26

Conversations Files Wiki Penny Hansson Joel Arvidsson Patients on conference

Conferences > Tisdagskonferens (s) solid, 6/26/18

Add patients

Patient, 195002021111

Report Conference view

Ann-Sophie Forsell

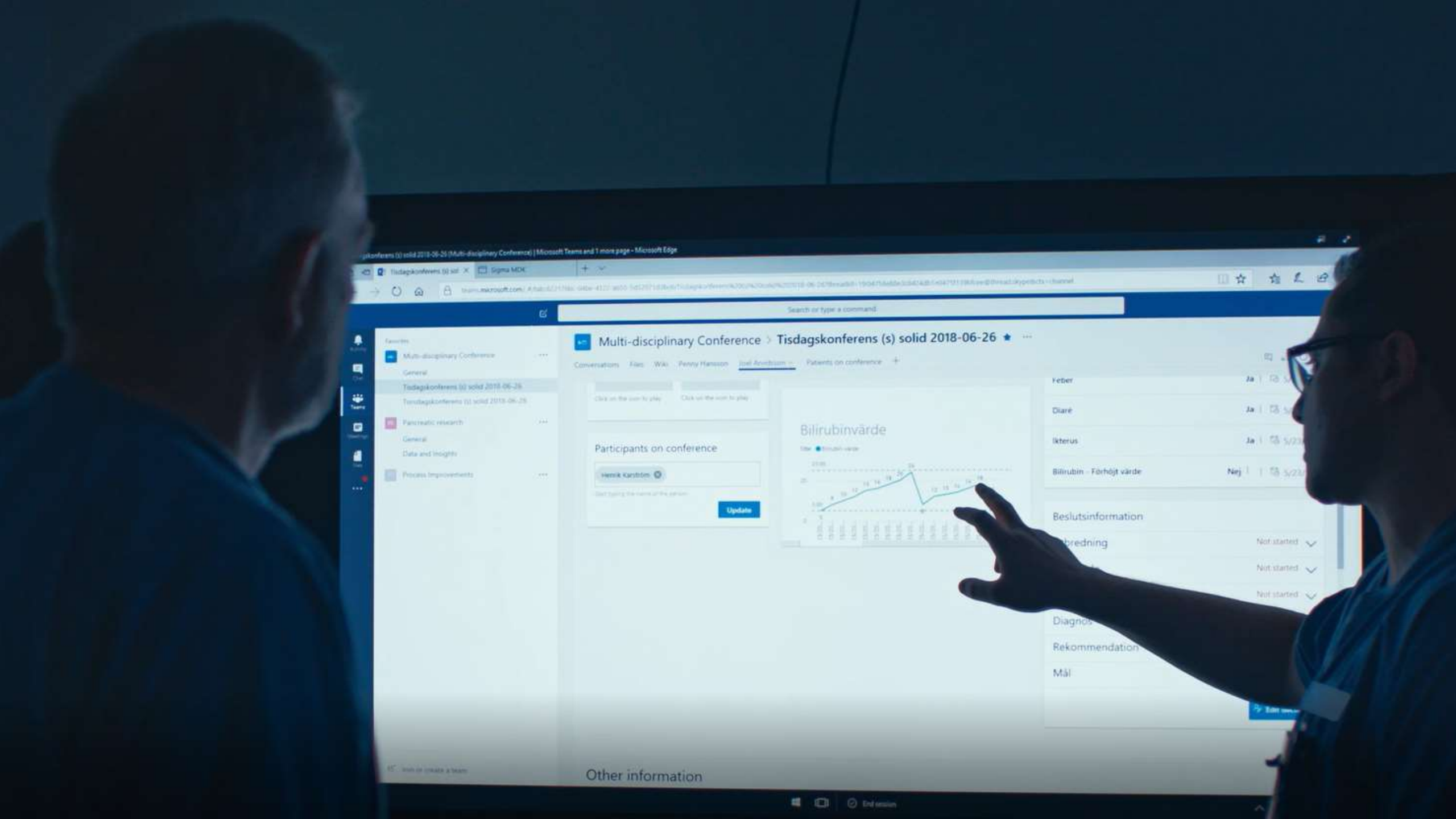
Person identifier	195002021111
Sex	Kvinna
Date of birth	2/2/50

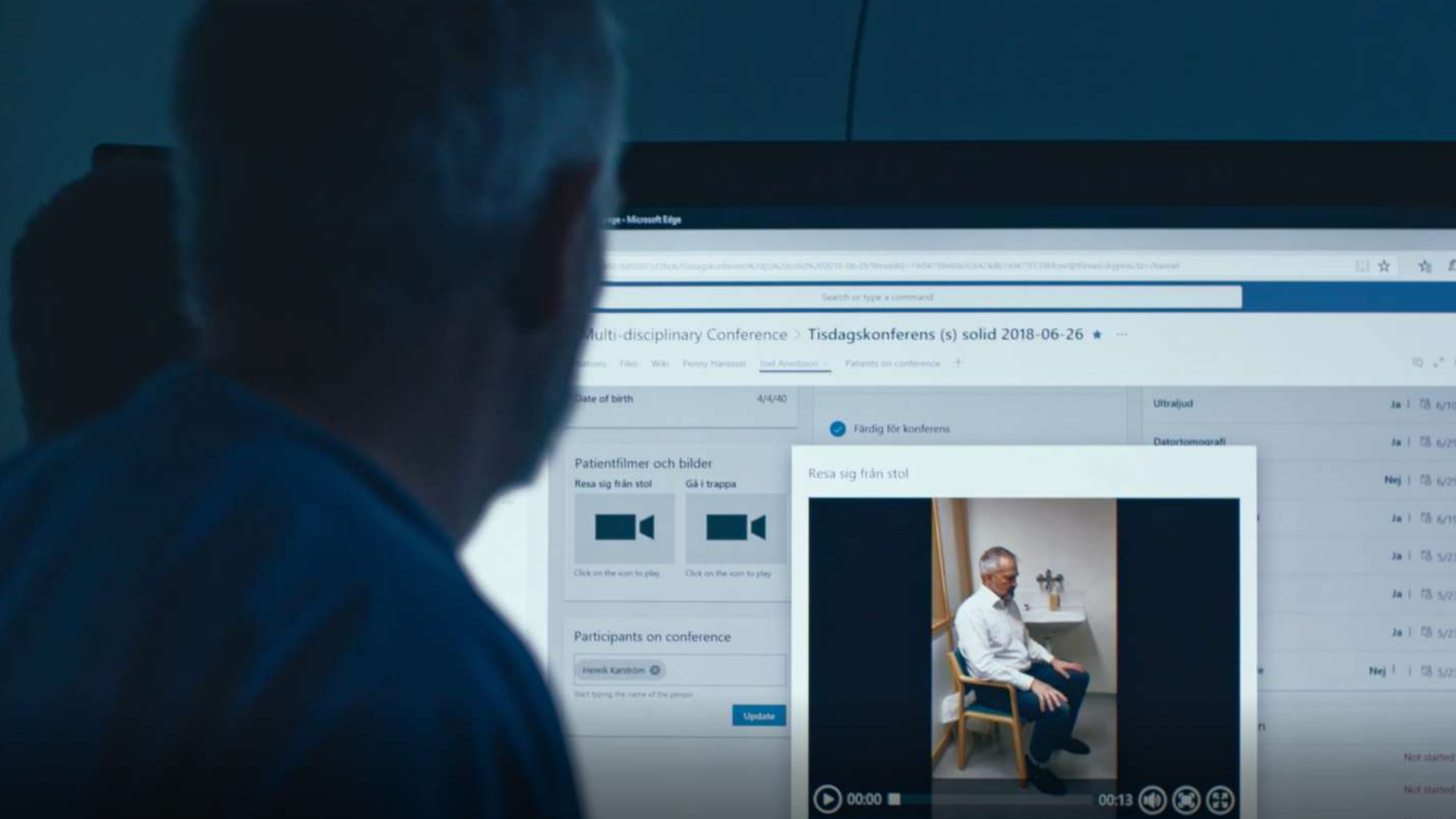
Patient, 194004041111

Report Conference view

Joel Arvidsson

Person identifier	194004041111
Sex	Man
Date of birth	4/4/40


Multi-disciplinary Conference
Tisdagskonferens (s) solid 2018-06-26
Conversations
Files
Wiki
Penny Hansson
Patients on conference
Participants on conference
Update
Bilirubinvärde
Feber
Diaré
Ikterus
Bilirubin - Förhöjt värde
Beslutsinformation
Not started
Diagnos
Rekommendation
Mål
Other information


Microsoft Edge
Search or type a command
Multi-disciplinary Conference > Tisdagskonferens (s) solid 2018-06-26
Date of birth
4/4/40
Patientfilmer och bilder
Resa sig från stol
Gå i trappa
Click on the icon to play
Click on the icon to play
Participants on conference
Henrik Karström
Update
Färdig för konferens
Ultraljud
Datortomografi
Resa sig från stol
00:00
00:13

Person identifier 194004041111

Sex Man

Date of birth 4/4/40

Care process Pancreas

Physician Asif Halimi

Demens

Patientfilmer och bilder

Resa sig från stol

Gå i trappa

Click on the icon to play

Click on the icon to play

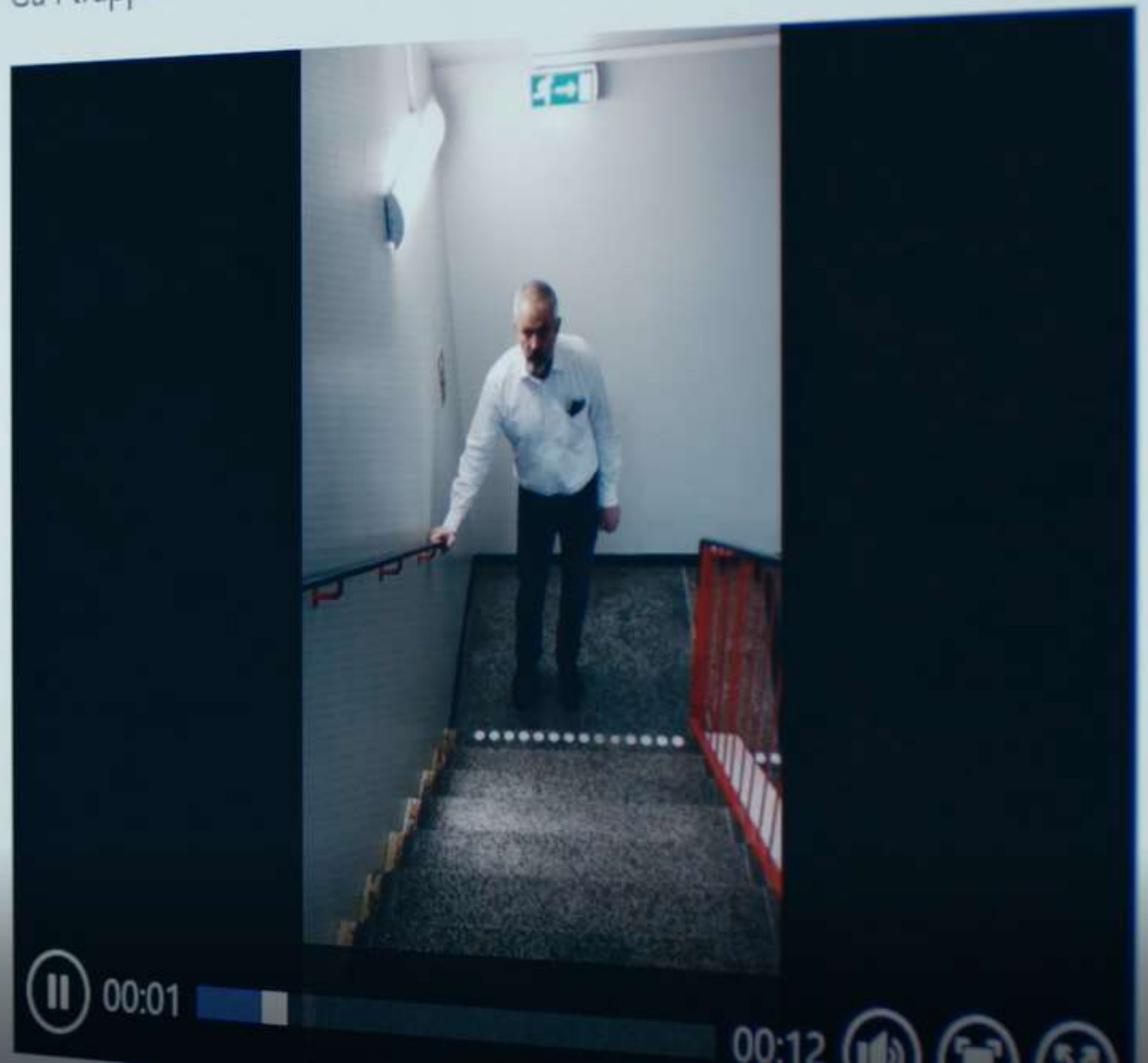
Participants on conference

Henrik Karlström

Start typing the name of the person

Update

Gå i trappa



Ochsner Health System

Reducing readmission to ICU

Outcome

Realtime patient monitoring of 300 to 600 datapoints per second

Patient improvement

Customer advocate

Ochsner saving lives by reducing codes outside of the ICU by 44%

> We can predict patient deterioration outside of the ICU with an accuracy of 98%”
>
> — **Jonathan Wilt,** CTO innovationOchsner
> Ochsner Health System

OVERCOMES false positive alarm fatigue

EARLY WARNINGS no longer too late

Real-time early warning system for patient deterioration

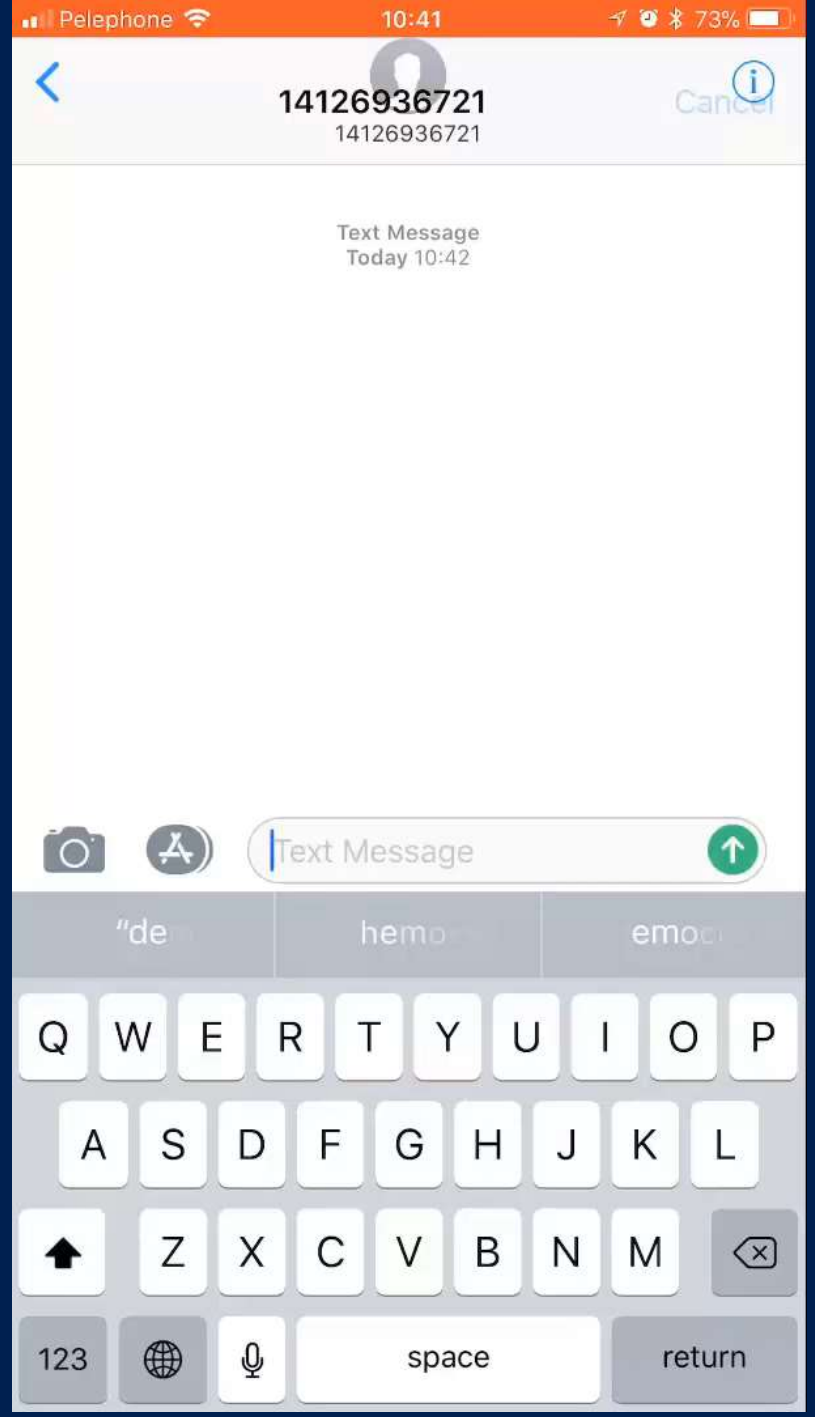
Epic

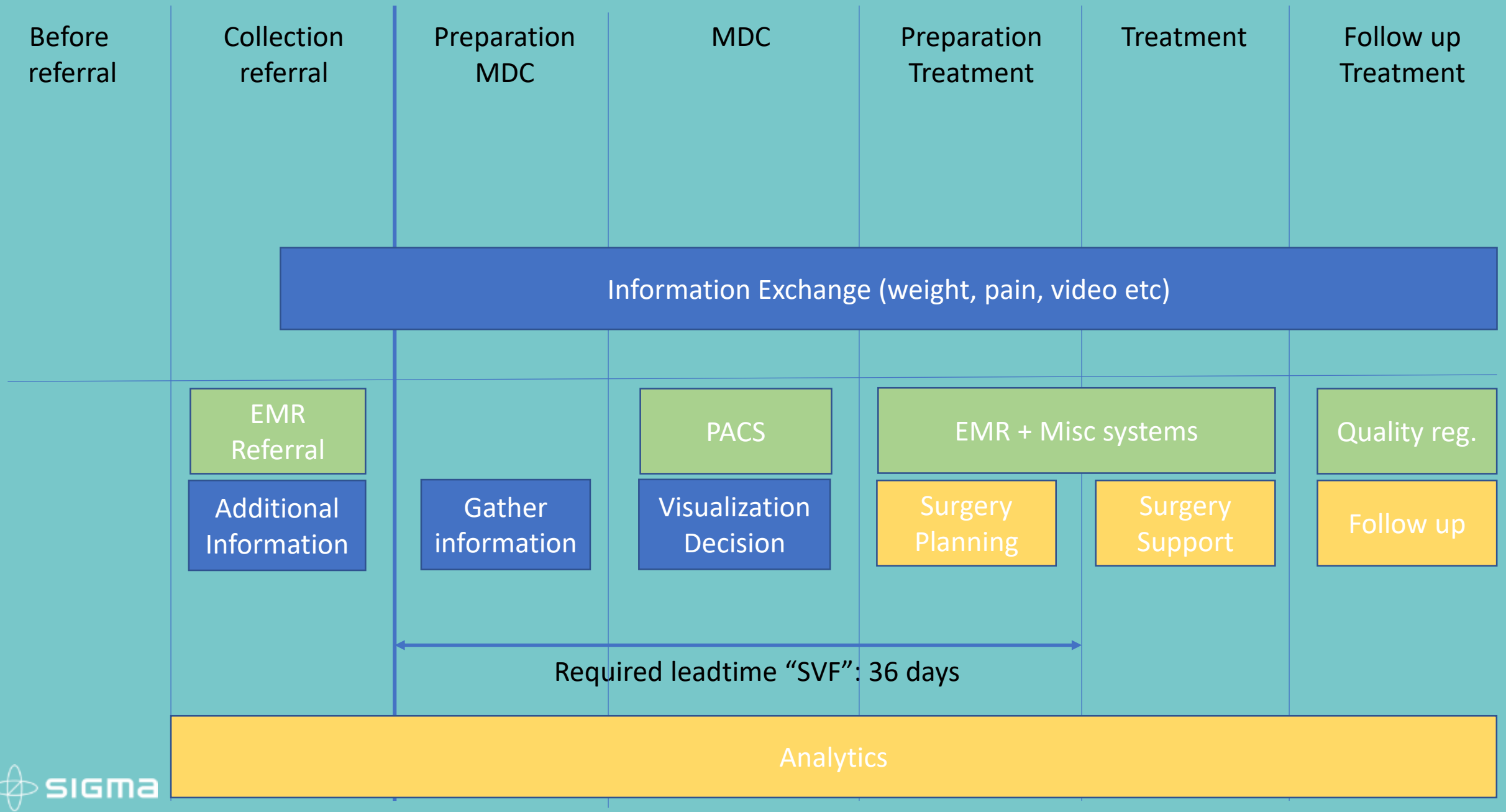
Ochsner Health System

The ideas

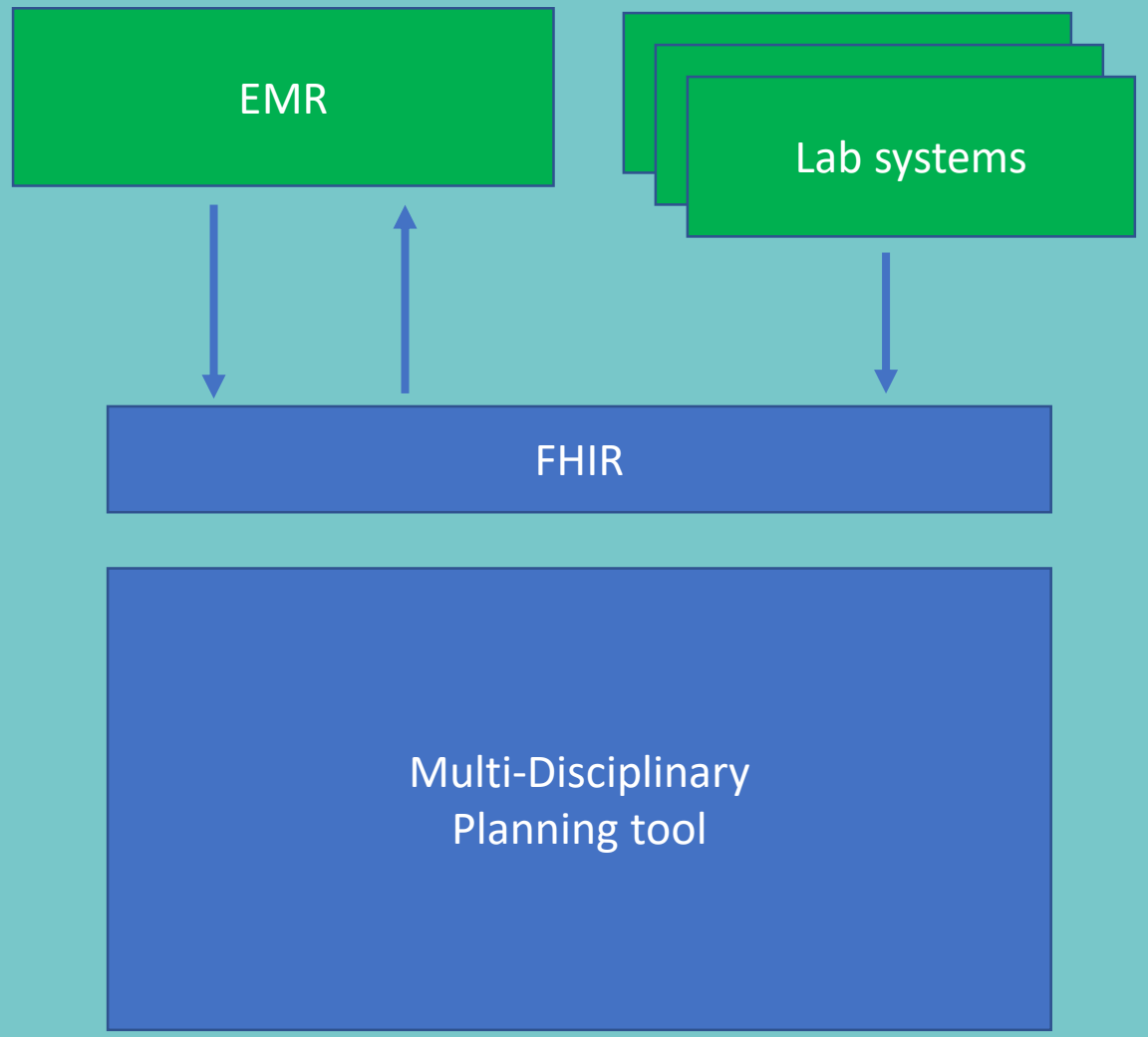
Supporting patients beyond the pill:

Health Bots




Before referral
Collection referral
Preparation MDC
MDC
Preparation Treatment
Treatment
Follow up Treatment
Information Exchange (weight, pain, video etc)
EMR Referral
Additional Information
Gather information
PACS
Visualization Decision
EMR + Misc systems
Surgery Planning
Surgery Support
Quality reg.
Follow up
Required leadtime "SVF": 36 days
Analytics

SIGMA



SIGMA

> Patient på konferens

Penny Hansson

Personnummer	195002021111
Kön	Kvinna
Födelsedatum	1950-02-02

Patientfilmer och bilder

Resa sig från stol

Klicka på ikonen för att spela upp

Gå i trappa

Klicka på ikonen för att spela upp

Samlad bedömning från remittent

2018-06-25

Patient presents with symptoms indicating Stage 3 pancreatic cancer.

Vårdflöden

Vårdflöde Pancreas

Ansvarig läkare Asif Halimi

Färdig för konferens

Operation?

Lägg till frågeställning

Bilirubinvärde

Utvalda värden

Övriga sjukdomar	D377, C250	2018-06-25
	Malign tumor in pancreas	
Pancreas-cancer i familjen?	Ja	2018-05-23
Hjärtsvikt	Ja, tidigare	2018-05-23
KOL	Ja, nuvarande	2018-05-23
Njursvikt	Ja, nuvarande	2018-05-23
Diabetes	Ja, tidigare	2018-05-23
Ultraljud	Ja	2018-06-25
MRCP	Ja	2018-05-23
Scintigrafi	Ja	2018-06-25
Kräkningar	Ja	2018-06-25
Smärta	Ja	2018-06-25
Ikterus	Ja	2018-06-25
Bilirubin-värde	⚠ OBS! 28 mmol/l	2018-05-23
Bilirubin - Förhöjt värde	Ja	2018-05-23

Patient App provided data incl. photo and video content

Process flow starting from the referring doctor

Data for this patient selected from 120+ possible SNOMED coded data points

Office 365 | MDK

Hem
Patienter
Konferenser
Personal
PowerBI
Teams

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Important data history presented using analytics

SIGMA

Secure Messaging

CHALLENGE

Health teams need to communicate quickly and securely

Teams deal with urgent messages that need real-time responses

Fragmented communication solutions can waste time & hinder care

Consumer apps & personal devices lack security protocols

Clinicians struggle to choose between speed and security

Secure messaging capabilities that supports your compliance

Priority notifications

Alert the recipient to an urgent message with automatic notifications every 2 mins up to 20 mins

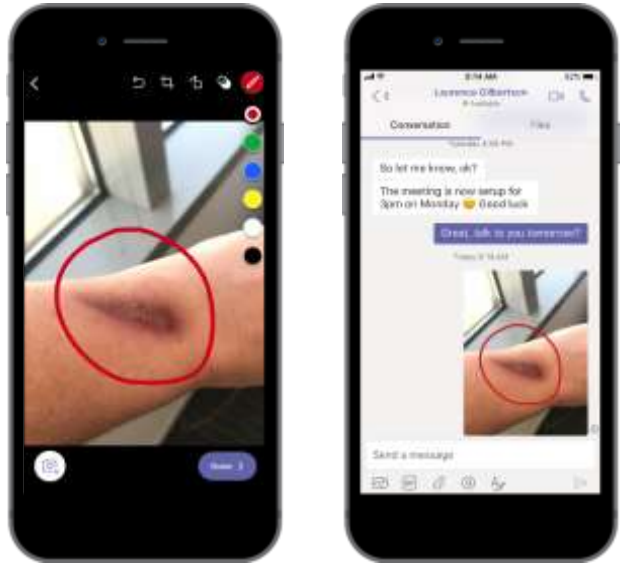
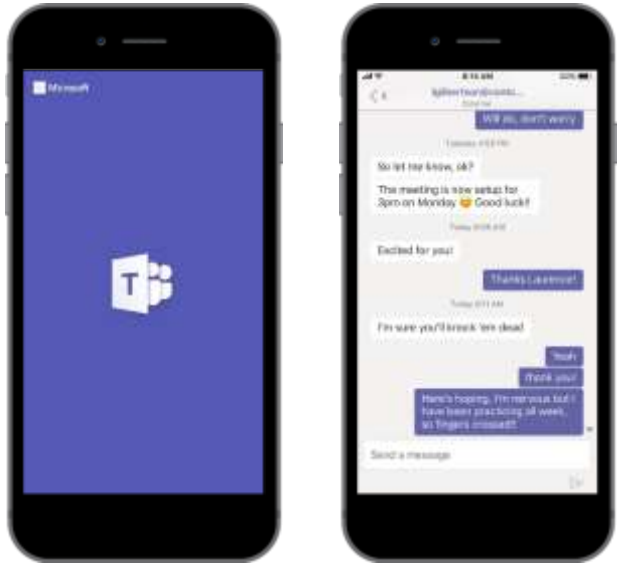


Image annotation

Capture images, annotate and share them on a secure platform



Federated messaging

Chat with federated contacts in Microsoft Teams across other organizations

Care Coordination

CHALLENGE

Care coordination is more complicated with team-based model

Handoffs and communication critical throughout care continuum

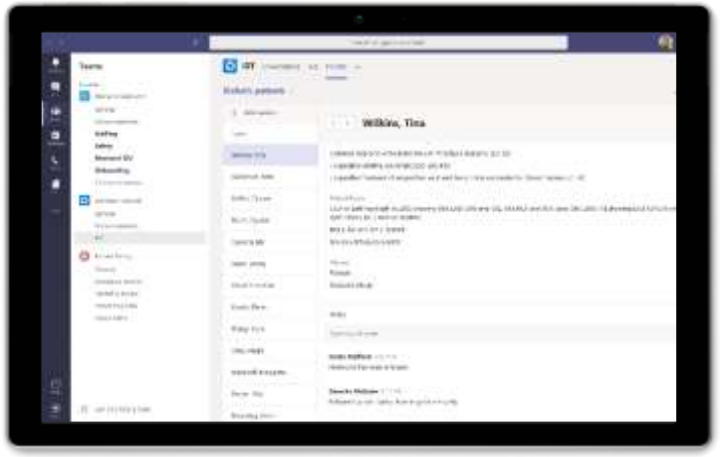
Siloed information creates administrative burdens

Growing dissatisfaction with complex, fragmented collaboration tools

Clinicians spend time chasing information and contacts

In-person care coordination meetings can burn too much clinical time

Coordinating Patient Care



Care Coordination

Coordinate patient care using a secure platform

EHR Integration

Connect Microsoft 365 extensible platform with the information you need from EHRs

Meetings

Host audio, video, and web conferences with anyone inside or outside your organization

Health Team Huddles

CHALLENGE

Health team collaboration is hindered by fragmented tools

Incidents not recorded or tracked across teams

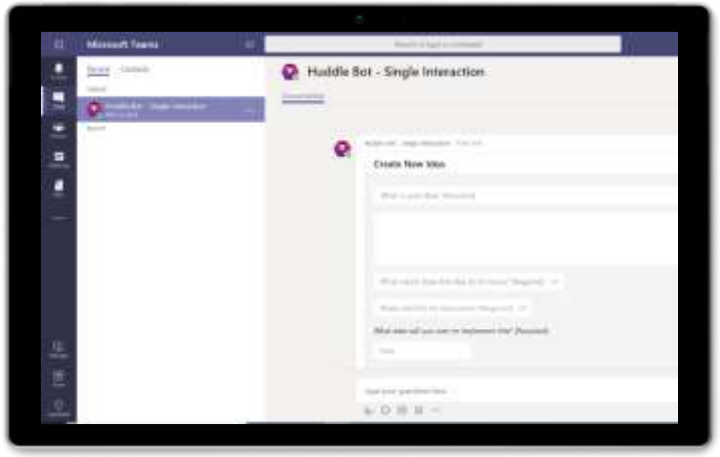
Patient and operational information difficult to collect

Care team members can feel disconnected or disempowered

Best practices not shared across the organization

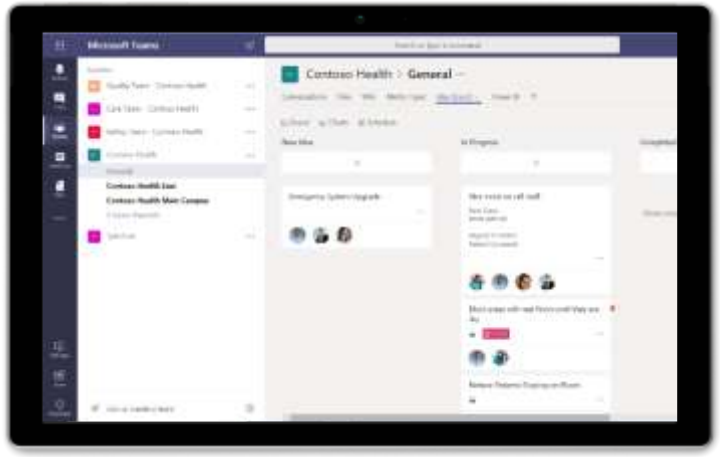
Fragmented and costly communications solutions

Digitizing Health Team Huddle



Chat bot

Share ideas through a chat bot before huddles



Bot & Planner Integration

Prioritize ideas through Bot & Planner integration

PowerBI Integration

Measure impact of idea & scale best practices

A **healthcare** revolution is coming

Thank you

andrew.graley@microsoft.com