# Health Care at a Distance

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INNOVATIONSPLATSEN
*Utveckling genom innovation*

# Health Care at a Distance

## What does it mean?

– Expert available independent of location
– Relevant expertise participate
– Same or even better quality as in the same hospital

## Why?

– Ageing population that become older
– More complicated diseases – few experts
– Fewer hospital beds
– Same care independent of where we are living

## Challenges

– Reimbursements, responsibility etc
– Care pathway: Information flow and work process
– Verifying functions in technology
– Communication infrastructure
– Integration and implementation of technology

Within

- the hospital

- the county council

- the region

- the nation

International

Between care givers

To/from home

# Three Cathegories

**Remote consultation of expertise**
*Expert available independent of location*

**Network and collaboration**
*Relevant expertise participate*

**Treatment at or near home**
*Same/better quality as in hospital*

# Remote Consultation



ERCP – Endoscopic Retrograde Cholangio-Pancreatography

Used primarily to diagnose and treat conditions of the bile ducts, including gallstones, inflammatory strictures (scars), leaks (from trauma and surgery), and cancer

Why remote guiding?

- Few experts

- Better treatment

- Easy to achieve

# Remote Consultation

## Video consultation was

– necessary in 8 cases
– important in 8 cases
– less important in 10 cases

## Technology improvements

– pointing developed to be tested
– control of video streams (not yet developed)
– usability feedback to developer
– parallel guiding

## Process improvements

– reimbursement
– responsibilities
– routines
– work processes

# Network and Collaboration

## Highly Specialised Care

- Upper part of the abdomen
- Safer and more cost efficient care
- All hospitals within the county council refer their patients to Karolinska
- Collaboration within the region, within county councils, and international
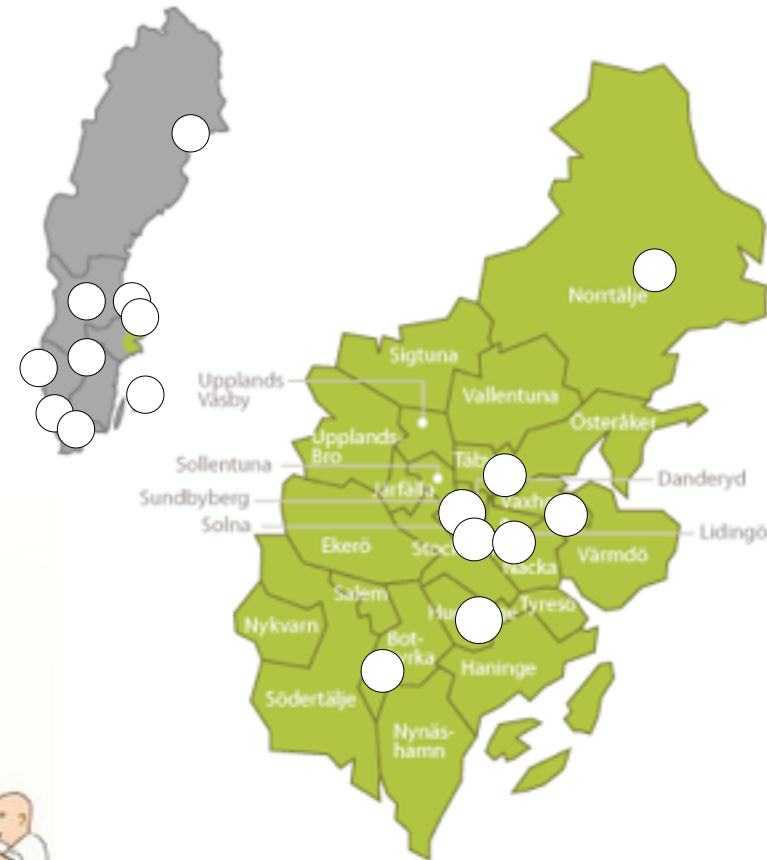
# Treatment at/near home

## Using telemedicine for home titration of patients with Parkinson's disease

– Successful in all three pilot cases

## A national clinical study

– Karolinska, Linköping, Uppsala and Lund
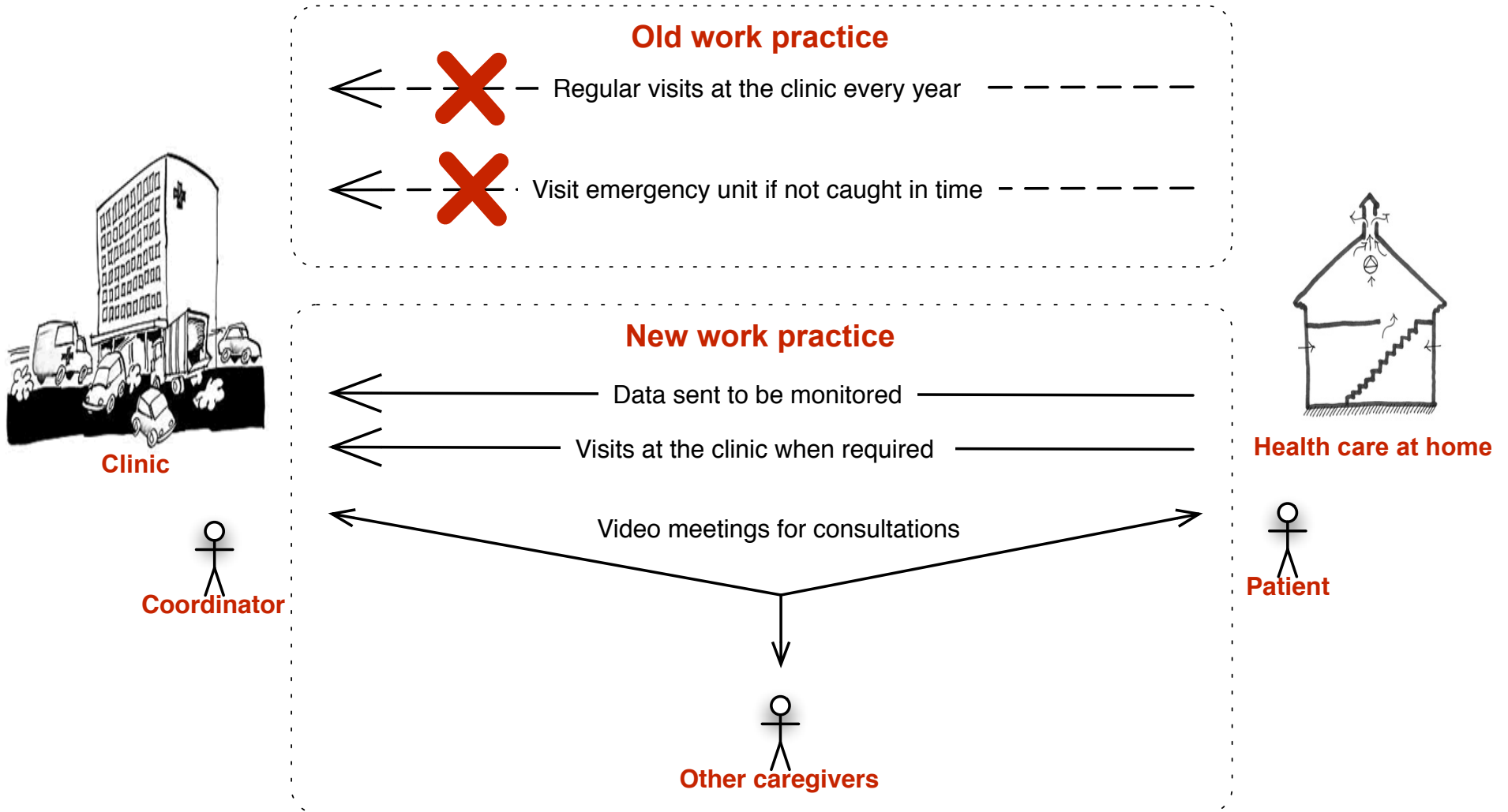
## Technology improvements

– video solution
– communication infrastructure at home
– using kinect/sensors as a complement

## Process improvements

– reimbursement
– work processes
– implementation

# Treatment at/near home



**Old work practice**

Regular visits at the clinic every year

Visit emergency unit if not caught in time

**New work practice**

Data sent to be monitored

Visits at the clinic when required

Video meetings for consultations

Clinic

Coordinator

Health care at home

Patient

Other caregivers

# Treatment at/near home

## Issues to be investigated

- What will the new work practices look like?
  How should the data be visualised and for whom at what point?

- What patient safety issues may appear?

- What responsibility will the patient/relatives take?

- What role does the technology play as a motivation for the patient?

- What are the health economical benefits/obstacles and for whom?

Innovationsplatsen

C1:77

Karolinska Universitetssjukhuset

Huddinge

Pendeltåg till Flemingsberg

Passera Södertörns högskola

Ingång huvudentrén

Plan 7



Text
Text

Patienten alltid först

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# Six themes

# Theme #one:
## Business Case

Need of models including patient safety, patient satisfaction etc, not just money

Health economy models and business cases important in order to
– validate and prioritise projects
– evaluate the benefits

To be used early in projects
– to validate estimated value

To be used late in projects
– to evaluate if the benefits have been reached

The model should be expressed graphically, among other ways, as a dashboard for example

Possible extension:
– visualise indicators that can measure patient benefits and economical benefits
– simulation of changes in the patient flow based on the indicators

# Theme #two:
## Heart failure patients at home

How can the patient be engaged / activated / motivated in his / her care

How can data and information be
– collected outside hospital
– used to analyse the patient's health status
– used as a ground for decisions on treatment
– used by the patient

To be used as input to a coherent chain of care and organisation of care

Big data?

# Theme #three:
## Neurology patients at home

How can the patient be engaged / activated / motivated in his / her care

How can data and information be

– collected outside hospital
– used to analyse the patient's health status
– used as a ground for decisions on treatment
– used by the patient

To be used as input to a coherent chain of care and organisation of care

Big data?

# Theme #four:
## Guiding room for ERCP

An expert guides less experienced endoscopists ... in parallel

A dedicated room is to be designed

Four, maybe up to six, hospitals can? be guided in parallel

What does the expert need to see?

How should the screens be placed?

How does the local hospitals get the attention from the expert?

How can the expert have a dialogue with one hospital without disturbing the others?

# Theme #five:
## Digital dash board for endoscopy

The endoscopy unit at Gastro Centrum needs to keep track of incoming patient at ERCP and endoscopy

Who is in the team today?

When is what patient scheduled for?

How many is in the queue?

What can be integrated with the EPR and how?

What indicators can be used to improve the work and how can it be presented?

## Theme #six:
## Digital dash board for NIVA

NIVA - Neuro intensive care unit

Who is on the team today and in what room?

How high is the workload in each room?
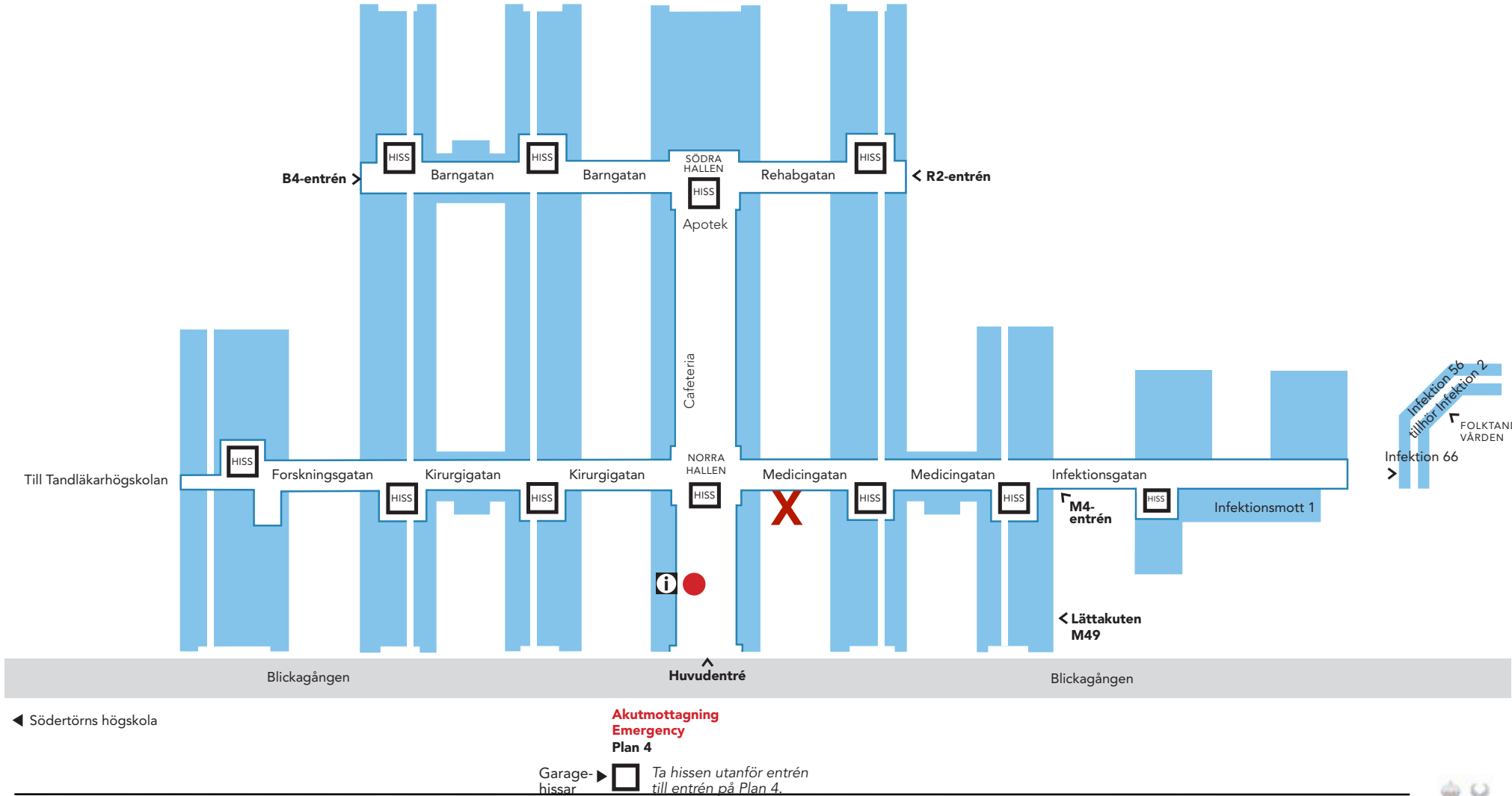
What patients are on the way in and when?

What patients are on the way out and when?

What indicators can be used to improve the work and how can it be presented?

Where should the digital dash boards be located?

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Adressen till mottagningar och avdelningar skrivs ofta som förkortningar, t.ex. **B86**: **B**=Barngatan, **8**=våningsplanet, **6**=den husdel som mottagningen/ avdelningen ligger i.

**ⓘ** Information

🔴 Du är här

☐ Hiss

**B4-entrén** ＞

HISS Barngatan HISS Barngatan

SÖDRA HALLEN

HISS

Apotek

Rehabgatan HISS ＜ **R2-entrén**

Cafeteria

Infektion 56 — 2
Infektion
tillhör
FOLKTAND VÅRDEN

**Till Tandläkarhögskolan**

HISS Forskningsgatan HISS Kirurgigatan HISS Kirurgigatan HISS

NORRA HALLEN

HISS

Medicingatan HISS Medicingatan HISS Infektionsgatan HISS

Infektion 66 ＞

Infektionsmott 1

**M4-entrén**

**ⓘ** 🔴

＜ **Lättakuten M49**

Blickagången

**Huvudentré** ︿

Blickagången

◀ Södertörns högskola

**Akutmottagning**
**Emergency**
**Plan 4**

Garage-hissar ▶ ☐ *Ta hissen utanför entrén till entrén på Plan 4.*

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# Contact me!

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