# **Transplant patients in control Home monitoring / measurements**

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### **Potential conflict of interests**

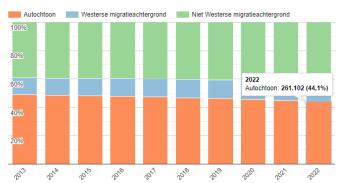
| All business relations (2019, 2020,2021,2022) irrespective of relevance to this meeting  (see also www.transparantieregister.nl) | Names of businesses  |
|--|--|
| Research funding   | <ul><li>Astellas</li><li>Novartis</li></ul>  |
| Honoraria or other (financial) reimbursement   | <ul> <li>Astellas</li> <li>Astra-Zeneca</li> <li>Chiesi</li> <li>GSK</li> <li>Mundipharma</li> <li>NovoNordisk</li> <li>Sanofi / Genzyme</li> <li>Vifor</li> </ul> |



### This is Rotterdam!

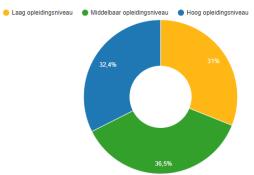
2nd largest city in The Netherlands 592.000

~175 nationalities









**Erasmus MC** 

Transplant Institute

### Erasmus MC in number (2021)

1220 beds

16.180 employees

659.317 patient visits

€ 2.1 billion revenue

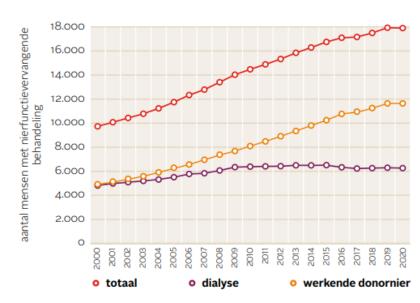
30.771 hospitalizations

203.000 m<sup>2</sup> floor area (41 football fields)

# Why telemedice / home measurement?

- To organize care around patient NOT hospital
- Give control to patients
- More efficient use of scarce time of both healthcare provide AND patients
  - Reducing clinic visits
  - Optimize preparation (digital) consult
  - Focused education / information
- More reliable measurements
- More efficient and better estimation of seriousness of situation (in case of an acute situation at home)
- We went from 5000 to 12000 living transplant recipients in 20 years, still go up!

Aantal mensen dat dialyseert of leeft met een donornier tussen 2000 - 2020



Nefrodata



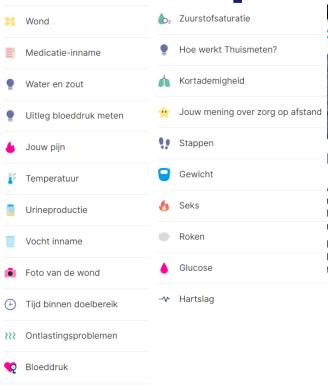
# What do you need?

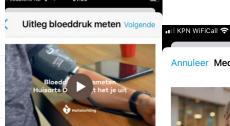
- Tools; our **SeCReT box** 
  - Blood pressure monitor
  - Thermometer
  - Oxygen saturation
  - Scale
  - Application for patient
    - To record / save measurements
    - To give information
    - To transfer measurements
- Application for healthcare provider
  - Essential is integration into existing systems





# We developed a few protocols





#### Bloeddruk meten

Als gebruiker van de Luscii app meet je thuis zelf jouw bloeddruk. Maar hoe doe je dat op de juiste manier?

Bekijk het filmpje van de Hartstichting en ontvang nuttige tips.



16:50

### Medicatie inname & bijwerkingen

#### Welkom!

Deze les bestaat uit 4 onderdelen:

- Informatie over medicatie en bijwerkingen. Zie het het filmpje hierboven
- · Tips voor een goede medicatie innam
- · Leefadviezen bij je medicatiegebruik
- Een vraag



Medicatie in eigen beheer





4. TRANSPLANTATIEMOGELIJKHEDEN Zichtbaar in Zelfzorg | Behoud bij protocol wis

5. DE SCREENING EN WACHTPERIODE Zichtbaar in Zelfzorg | Behoud bij protocol wis

# **Our COVID program**

March 21 – Oct 14, 2021 41 patients included, 56% female Average 49 years, 22-82 years

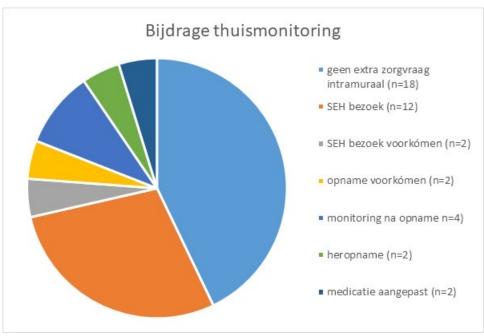
1 deceased (2.5%)

(Mortality 1st wave 22%)

Duration of admission median 8 days (3-46)

Prevention of ED visit in 2, hospitalizing in 2

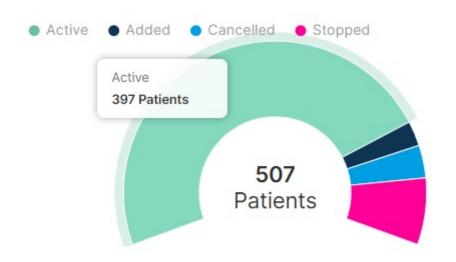
Patient satisfaction (scale 1-5): 4x 5 and 4x 4





### Patient numbers on October 6th 2022

#### Status patients



- 22 patients added (4%)
- 28 patients cancelled (6%)
- 59 patients stopped

Most returned to another hospital after 1 year posttransplant



# **Current developments**

- Expanding home measurements to
  - liver, lung and heart transplant (Transplantation Institute)
  - kidney donors
  - patients in work-up of kidney transplant
  - patients with chronic kidney disease (seeking collaboration with Rijnstate Hospital)
- Expand current <u>education in app</u>
  - Information on kidney donation in 5 languages (via Kidney Foundation)
  - Patient education: 'Life after a transplant'
    - Medication & Adherence (in collaboration with "Kijksluiter")
    - Exercise & Nutrition
    - Sexuality & Pregnancy
    - Feelings & Meaning
    - Work & Allowances





### **Future directive**

### Step 1

Regional or at-home blood drawing
 via dried-blood-spot (more reliable, slow)
 via point-of-care meting (less reliable, fast)
 via local blood drawn service (already effective)







#### Result:

- Less hospital visits / visits to (local) blood drawn service
- We expect 25-50% physical consultations to be replaced by digital (video / telephone)



### **Future directive**

### Step 2

- Data monitoring center (specialist nurse)
  - Patient sends values (blood / physical measurements / requests) 3-4x a year
  - Evaluation of these SN. In case of no abnormalities, no visit and next values 3-4 months
  - In case of abnormalities
    - Protocolled provision of care (prescriptions, simple questions or problems)
    - With more extensive problems an appointment with nephrologist
  - Only once a year a standard, longer lasting (in stead of 10 minutes) visit

#### Result:

- Comparable high quality care at home
- Greatly reduced (50-75%) workload healthcare provider, more efficiency and happiness

