# Kaiku Health

Optimize cancer care with real-time patient data

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Elekta Oy
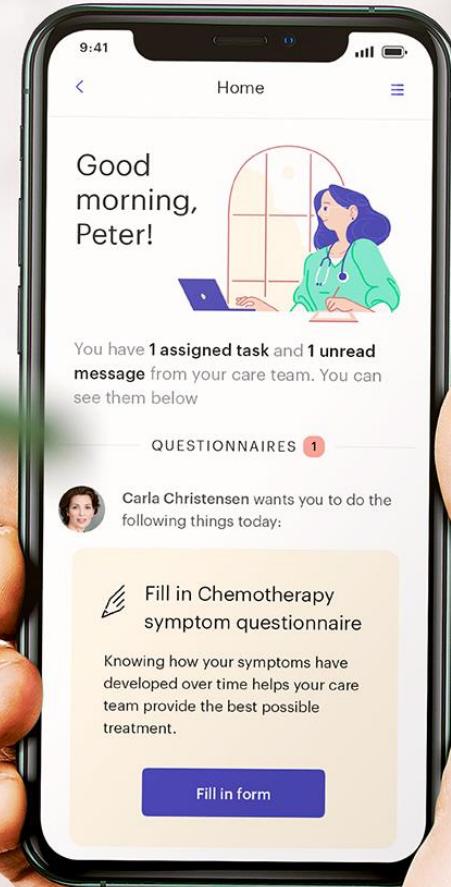
Challenges in oncology patient monitoring

Cancer incidence and prevalence are increasing

Treatments are becoming more complex, personalized and targeted

For patients:

- Difficulty reaching correct care team member
- Unsure about which symptoms to report
- Recalling all symptoms experienced between appointments, selective memory
- Reporting symptoms too late
- Fear of therapy denial upon symptom reporting

**For healthcare practitioners:**

- Timely management of toxicities
- Difficulty addressing high phone call volume
- Lacking structured data visualization
- Underestimating patient's symptoms
- Time-consuming manual processes
- Limited insights to use for quality management and optimizing treatments

Source: Pakhomov SV, Jacobsen SJ, Chute CG, Roger VL. Agreement between patient-reported symptoms and their documentation in the medical record. Am J Manag Care. 2008 Aug;14(8):530-9.
PMID: 18690769; PMCID: PMC2581509.

Introducing Kaiku Health
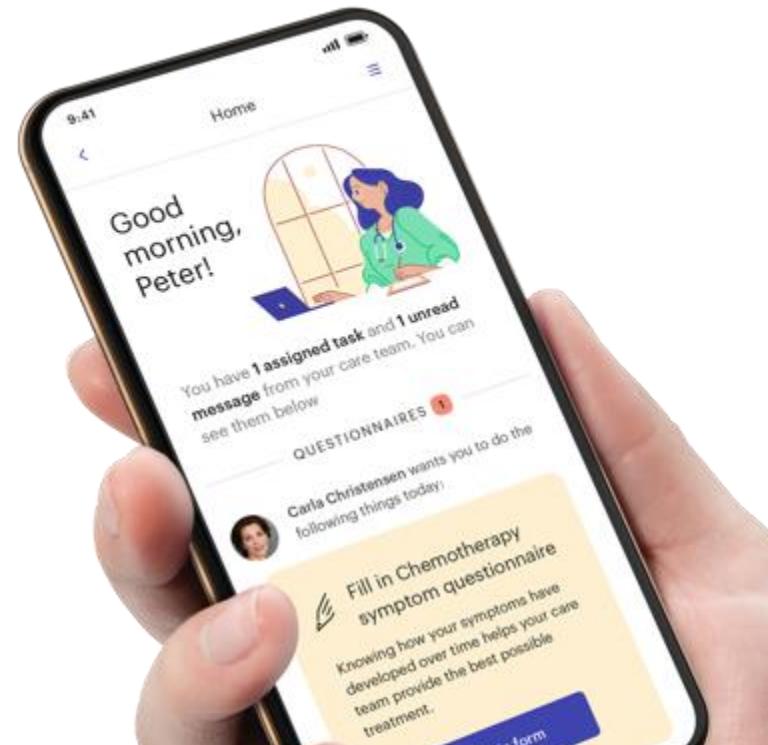
Patient-reported outcome monitoring
Weekly monitoring of treatment related symptoms
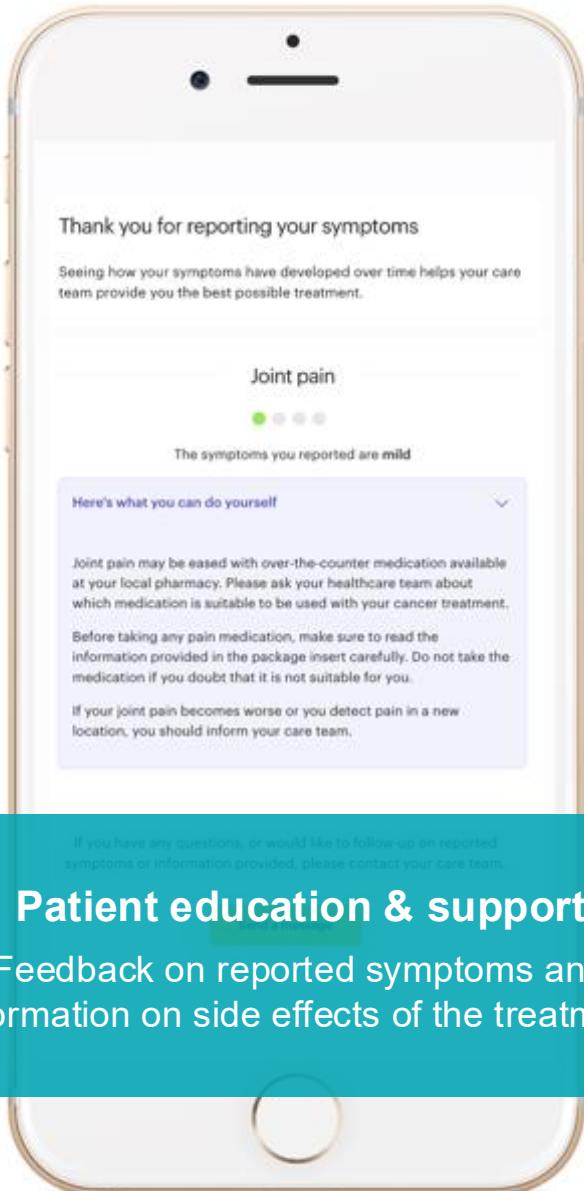
Patient education & support
Feedback on reported symptoms and information on side effects of the treatment
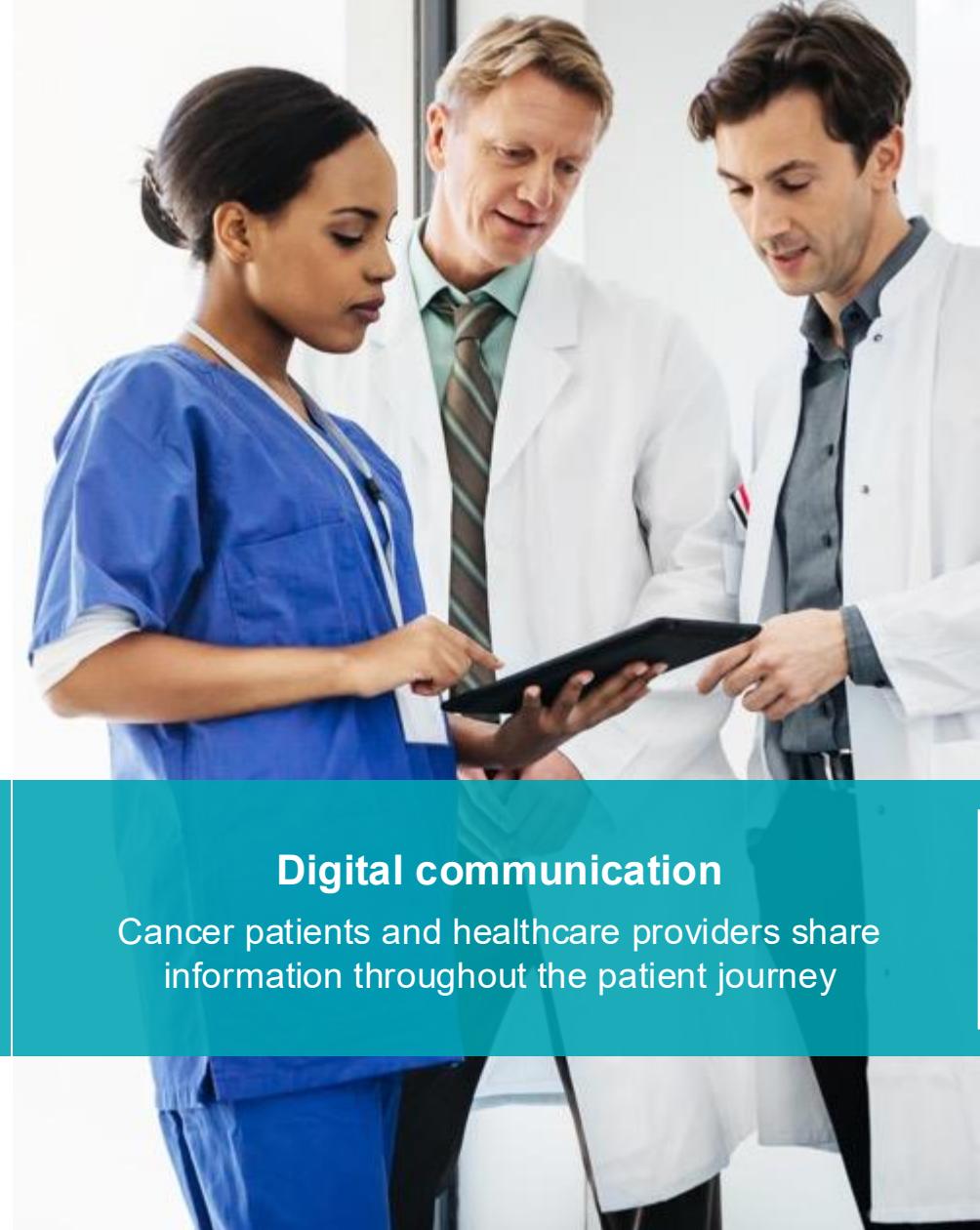
Digital communication
Cancer patients and healthcare providers share information throughout the patient journey

Value for the adopter – Key benefits

Improved patient safety and high patient satisfaction

More efficient treatment coordination

Structured RWD on treatment effectiveness

- 86-90% of patients felt that Kaiku follow-up improved their cancer care[1,2] and 95-99% of patients would recommend using it[1,2]

- Earlier detection of symptoms (e.g. on average two months earlier detection of neuropathy) [2]

- 57-84% reduction in phone calls from patients[2,3]

- More efficient and focused discussions between the patients and HCPs (4.2-4.4 out of 5 in likert scale as rated by nurses & oncologists)[4,5]

- Earlier interventions to symptoms (3.9-4.6 out of 5 on likert scale as rated by nurses & oncologists)[2,3]

- Highly structured patient-reported data elements captured with over 80-90% compliance

- Machine Learning models capable of predicting onset and continuity of symptoms with good to excellent performance (e.g. 0.77-0.96 AUC)[6]

- First scientific evidence suggesting that patient-reported data may support predicting treatment outcomes[7-9]

1. Iivanainen et al., JFR 2020
2. Iivanainen et al., Ann Oncol 2021
3. Haukland et al. 2022

4. On a scale of 1 to 5, describing low to high agreement to statement
5. Schmalz et al., J Med Internet Res 2020
6. Iivanainen et al. Arch Clin Med Case Rep 2020

7. Iivanainen et al., Ann Oncol 2020
8. Iivanainen et al., BMC 2021
9. Sandoval et al., J Clin Oncol 2022

Ole yhteydessä mikäli haluat kuulla lisää!

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Elekta

How does the Kaiku Health platform work?

1. Patient is registered in Kaiku and assigned to the right program

2. Reminder to patient to report symptoms/QoL status

3. Adaptive questionnaire for intelligent symptom monitoring

4. Kaiku Health's algorithms screen through the reported symptoms

5. Automatic alerts to care team on severe symptoms

6. Automatic feedback to patient

7. Non-urgent electronic communication / chat function (optional)

Patient education

Data analytics and digital interventions

Kaiku® Bridge can be connected with other information systems (e.g. EHR)
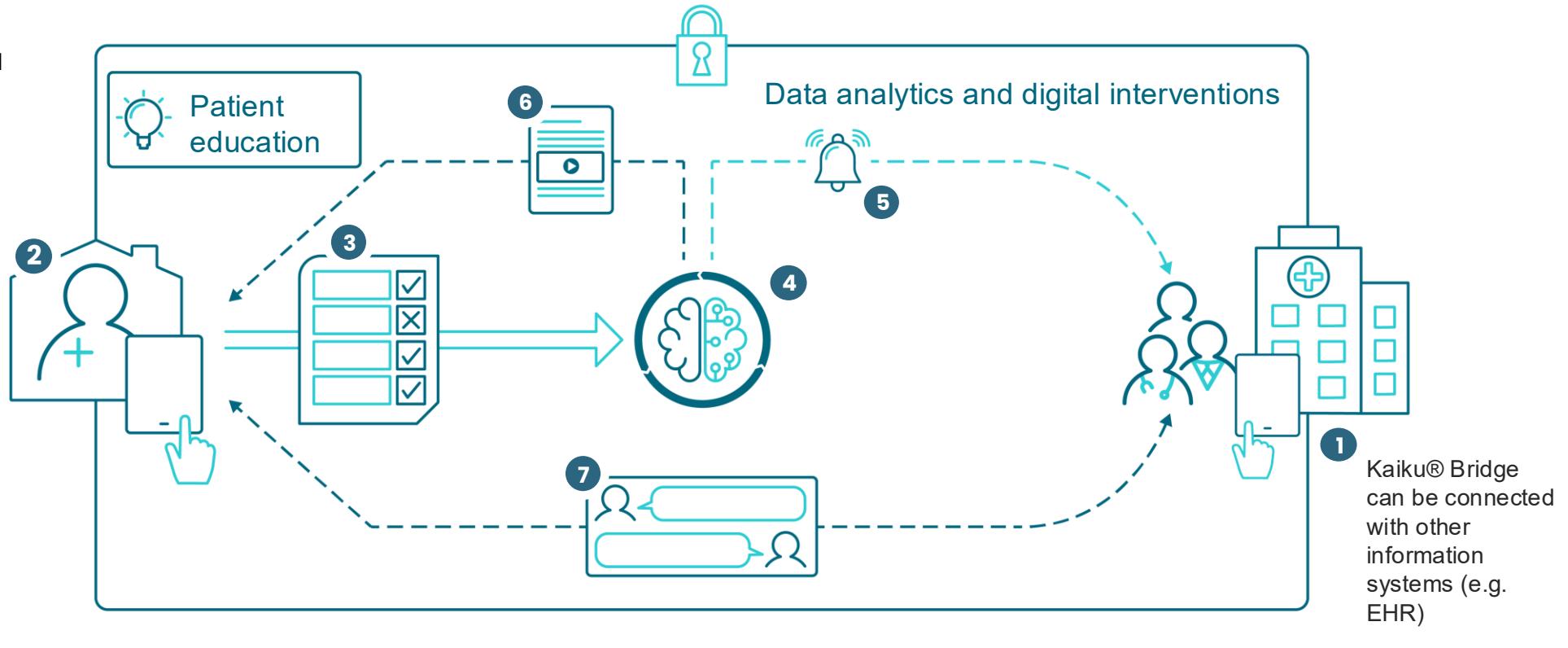
Kaiku modules allow to monitor patients across all treatments and indications in oncology

Targeted therapies	Immunotherapies	Cytotoxic treatments	Hormonal treatments	Hematological malignancies	Radiotherapy
• Targeted therapies (Generic) • EGFR+ targeted therapy • ALK+ targeted therapy • BRAF/MEK therapies • Anti-HER2 • PARP inhibitors • mTOR inhibitors • PI3KCA inhibitors • CDK4/6 inhibitors	• Immunotherapy PD-1, PD-L1, CTLA-4 or PD-1+CTLA-4 • Immunotherapy and chemotherapy combination • Immunotherapy and TK inhibitor combination	• Chemotherapy	• Hormonal treatment for prostate cancer • Hormonal treatment for breast cancer	• Chronic lymphocytic leukemia treatment • Multiple myeloma treatment • Lymphoma treatment • Acute Leukemia and MDS treatment • Chronic myeloid leukemia treatment • *Myeloproliferative Neoplasms (In progress)*	Acute-subacute and late emerging symptoms: • Brain • Chest area • Female Breast • Female Pelvis • Male Pelvis (Prostate & Bladder) • Head & Neck • Rectum • Stomach & Abdomen • Thorax

The platform supports also usage of other validated PRO instruments (e.g. QoL measurements, EORTC forms) and for complementing the existing modules.

Case study

Real-time data eases clinician burden for Norwegian Hospital

Challenge:
To prevent adverse events and provide safer care for cancer patients, Norland Hospital Trust needed to involve patients more in their treatment and follow-ups.

Solution:
In 2020, Norland Hospital Trust became the first hospital in Norway to implement Patient Companion. Dr. Haukland and her team implemented the solution as a quality improvement project using innovation funding from the regional health authority.

Results:

The team's workload significantly decreased
Clinicians are no longer burdened with manual data collection.

Fewer phone calls from patients
Calls dropped from an average of 20 per month to less than five because the app provides personalized feedback about symptoms and in-the-moment support.

Improved patient flow in the infusion clinic
Nurses can view patient-reported outcomes in the app while viewing lab results, often eliminating the need to conduct a patient visit before immunotherapy infusions.

"Kaiku helps us work **more efficiently** and provide **safer treatment,** which is important as we see more and more cancer patients."

Ellinor Haukland, MD, PhD, Clinical Oncologist
Nordland Hospital Trust, Norway

Insights into patient compliance of Kaiku

66
Median age of cancer patients using Kaiku Health, in the last two years

Data reviewed 4.6.2024

71
35.7% of cancer patients using Kaiku are at least 71 years

Data reviewed 4.6.2024

Adherence remains high despite aging, country, symptom burden and QoL level

Linsvelt, et al. ESMO 2023

FOLLOW-UP MODULE	BI-WEEKLY COMPLIANCE
Radiotherapy for prostate cancer	94.0%
Radiotherapy for breast cancer	95.9%
Chemotherapy	90.9%
Immunotherapy	92.9%
Targeted therapies	89.5%
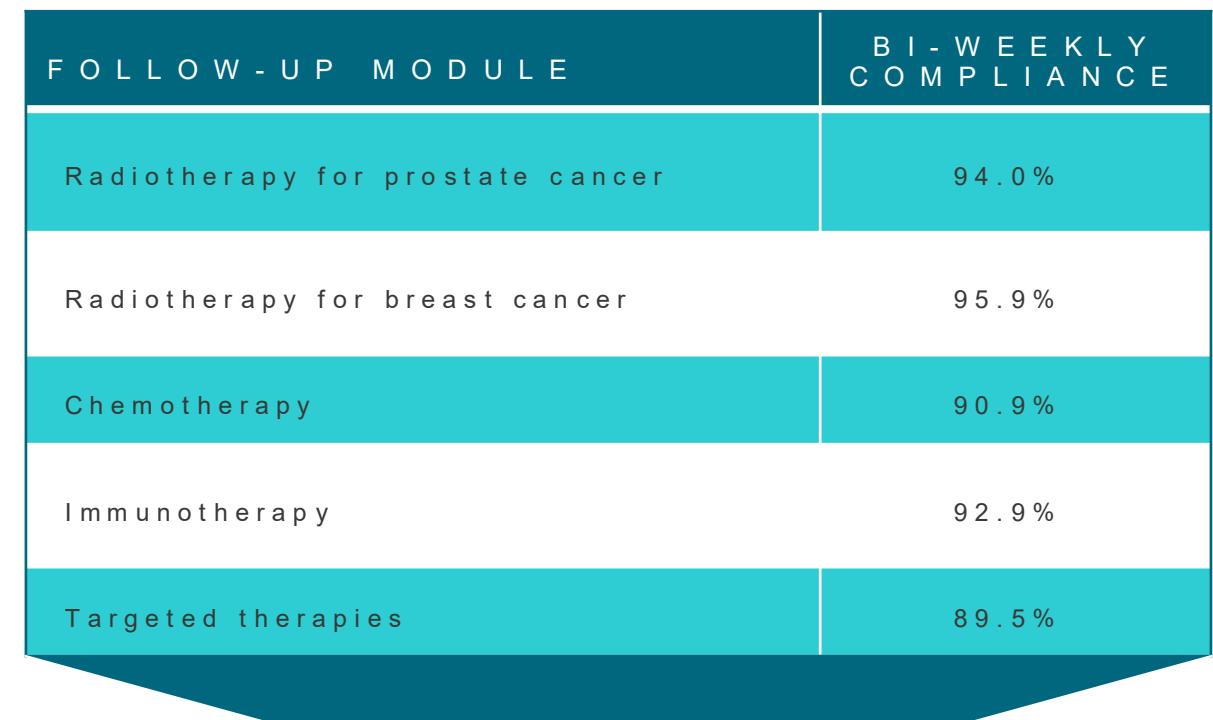
91%
Patient compliance in symptom tracking**

** how often patients fill in symptom questionnaires at least bi-weekly for first 24-48 weeks, data reviewed 4.6.2024 (2023-2024)

Kaiku is operational today in over 20 countries

As today

Plan to be present or research only*

100+ routine care customers

70+ clinical users in research

NETHERLANDS CANCER INSTITUTE
ANTONI VAN LEEUWENHOEK

eoc

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ISTITUTO NAZIONALE TUMORI
IRCCS - Fondazione Pascale

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LOC
Leaders in Oncology Care
part of HCAHealthcare UK

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DOCRATES
CANCER CENTER

NORDLANDSSYKEHUSET
NORDLÁNDA SKIPPIJVIESSO

HUG Hôpitaux Universitaires Genève

TUMOR ZENTRUM AARAU TZA

HIRSLANDEN

Leben Salud
Excelencia para la vida

*plans subject to change