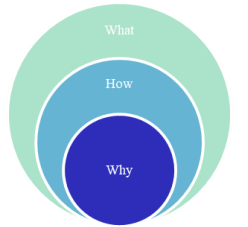# Outcome-based personalized care & counselling in Head & Neck cancer
A balance between Quality & Quantity of Life

WHY Provide tailor-made and appropriate future proof (Head & Neck) cancer care and counselling to strengthen patient empowerment in both the curative and palliative phase.

HOW Using outcome data and communication technologies on two levels:
- Individual-level: strengthening patient empowerment and decision-making: 1) for professional use in the consultation room and 2) for patient use enhancing self-management within a controlled environment of remote cancer care & monitoring.
- Population-level: quality improvement of the healthcare trajectory by continuous learning from aggregated outcome data.

WHAT With healthcare tools as our ePRO-structure and individualized prognostic models in easy-to-use dashboards.

"We have shown to be able to bring outcome-based healthcare concepts to implementation."
### Track record

- Development of the Rotterdam Oncology Documentation (RONCDOC): a complete and consecutive data warehouse including clinical, diagnostic and therapeutic data and a biobank for head and neck cancer.
- Development and structural implementation of our electronic Patient Reported Outcome (ePRO)-structure "Healthcare Monitor" with a dashboard to discuss ePRO results with all patients either in the consultation room or via remote care: **https://youtu.be/OiXCxcC8pSs**.
- Structural implementation of remote oncology care in the palliative phase by four specialized oncology nurses.
- Development, validation and clinical testing of a prognostic model on overall survival in the curative phase (OncologIQ), for use in the consultation room and in the multidisciplinary team + model development overall survival palliative phase. First prognostic model development on functional complaints/ QoL.
- Development of a prototype app for continuous monitoring at home of functional complaints and quality of life.
- Development of a PREM-itembank based on a literature search and a patient journey with the Dutch patient organization.
- Broad experience in complex care for HNC patients within our Expert Center Palliative care; and in research of psychosocial aspects of head & neck cancer, qualitative research and patient involvement in research.

Hospital care: advanced consultation room

Individualized care and counselling: monitoring individual functioning & predicting Quality and Quantity of Life

Better care in the consultation room with patients that will be optimally prepared and informed with individualized outcome information empowering the process of shared decision-making.
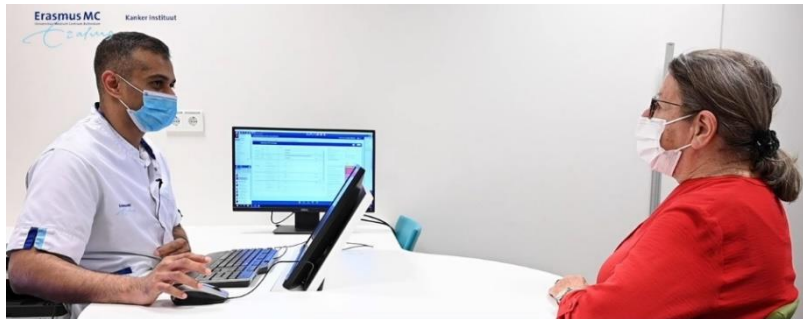
Using ePRO-results leads to increased quality of care as care is based on outcomes that matters most to the patient. Clinicians identify critical issues and patients actively participate in their own care, enhancing patient empowerment.

Patient reported outcome data; course of functioning
How am I doing?

Patient reported outcome data; dynamic prognostic modelling
What can I expect of QoL?

Medical outcome data: prognostic model with individualized estimation of the overall survival probability;
What can I expect of survival?

Remote care: shift from physical care to more ePRO-guided monitoring

We will further built on our learnings with remote palliative care to shape the big picture during all disease stages.
It means a shift from traditional hospital care only to remote care with continuous ePRO-guided monitoring. We aim to use ePRO-results to determine the optimal individual approach of the cancer follow-up consultations. Personal follow-up visits can where possible be replaced by e-consults. By closely monitoring complaints and the insights from the dashboards, we can better determine which care benefits the individual patient most. The dashboard signals can give instructions to refer the patient to the most suitable healthcare professional.
Safe technology will be used to facilitate direct contact with the primary physician/team. More advanced and easy to use digital solutions at home, like continuous monitoring done by the patient in a patient dashboard/ app, video chats with professionals and peers, educational tools and wound care support all integrated with exiting tools and data sources. Our digital solutions can decrease the burden on care professionals and at the same time enhance patient empowerment. Specifically in the palliative phase, digital solutions can support more vulnerable patients to stay as longs as possible at their preferred place: their home.

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