# ONCOLOGY REAL WORLD DATA (RWD) - ENABLING LEARNING HEALTH SYSTEMS

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## Introduction

- Unprecedented advances in oncology innovation and precision medicine are increasing treatment complexity.
  - 57 drugs were launched between 2014 and 2018 available across 89 indications and 23 cancers.[1]
- In parallel, the cost of cancer care is rising with increases in prevalence, treatment duration and treatment costs
  - The overall spend in oncology drugs is expected to increase by 10-13% increase to $220-250 billion in the total oncology market.[1]
- Additionally, high levels of variation in outcomes between cancer patients exists[2]
- Systematically sharing Real-World Data (RWD) on routine clinical practice is an important tool to help navigate these treatment complexities in oncology.
- A learning health system requires RWD from routine clinical practice, captured in near real-time to be comparable and fed back to the health system with low latency.[3]

A learning health system uses new information to continuously improve and innovate clinical practice

## Objectives

- The Oncology Data Network (ODN) aims to systematically share RWD on routine clinical practice.
- It draws lessons from a collaborative European data-sharing platform, the ODN developed to observe best practice, highlight variations in care, catalyse research and help address financial sustainability challenges.

## Methods

- Through a collaborative approach with patients, clinicians, biopharmaceutical companies and cancer organisations, IQVIA, supported by the Collaboration for Oncology Data in Europe (CODE), assessed the technology and data requirements of a data-sharing platform to meet oncology stakeholders' needs.
- An approach to address these requirements was then identified.
- A robust governance framework was established to ensure the ODN:
  - *Meets the needs of the broader oncology community*
  - *Maintains transparency on analyses generated*
  - *Works in a complementary way to existing initiatives.*

**Clinical and Analytical Steering Committee (CASC**) made up of leading scientists and oncologists governs the ODN

**Country Advisory Groups (CAGs)** advise on Network development and engagement with organisations and regulatory bodies

- Data protection authorities were consulted to evaluate the proposed data protection and privacy solutions
- The ODN has worked in partnerships with public and private sector organisations to enable secure data sharing aligned with General Data Protection Regulation (GDPR) and in the patients' interests.

## Results

- Prerequisites identified included low latency data access, data across all tumour types, comparability, sufficient clinical depth, support and involvement of, and minimal administrative burden to the clinical community, GDPR alignment, and flexibility to facilitate different payment models.
- The ODN provided analytically ready information in <48 hours on a concise set of variables including clinical & demographic characteristics, indication, and detailed drug utilisation including treatment plan, dispensing and administration for anti-cancer medicines longitudinally.

### Key Features of the ODN

**Speed** — **Near real-time analyses** of clinical usage which can be done longitudinally

**Analytically Ready** — **High quality clinical data** analytically available and usable for research

**Scale** — **Fully inclusive -** aims for all cancer types, all patients from participating centres

**Efficiency** — **Automated extraction** from existing clinical systems

**Comparability** — Maps and translates data into a **standardised ODN data model**

**Security** — High standards of privacy and data protection, **aligned with GDPR**

### TECHNOLOGICAL ADVANCEMENTS

**Development of CoTrack**
- A robust, reliable and proprietary technology
- Built following the principles of 'data protection by design'

**Secure data processing**
- A multi-stage automated process was used to render the data non-identified
- Automated and fully auditable technology

### EXPANDING FOOTPRINT ACROSS EUROPE

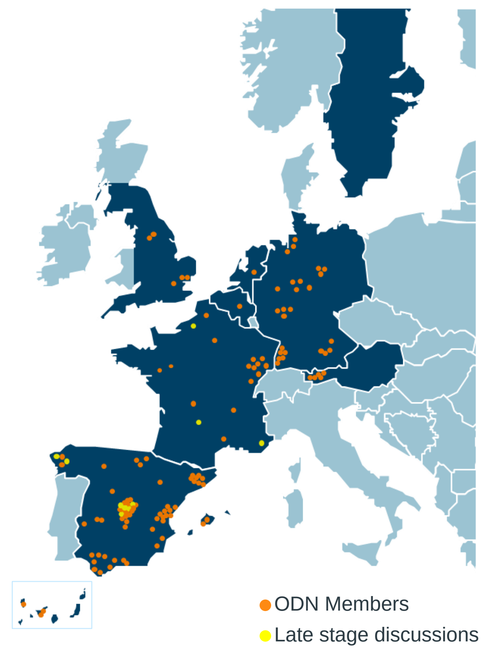
Early analytics were available from 2019

**7**
*Countries in scope*

**c.124**
*Member Hospitals*

**92,000**
*Patients Undergoing Anti-cancer Therapy*

***28,000***
*Distinct anti-cancer regimens have been mapped enabling comparability of treatments across centres*




### BROAD ONCOLOGY COMMUNITY ENGAGEMENT

**30**
*Leading Clinical Experts on CODE advisory committees*

**50**
*Technology Partners*
*Contracted with IQVIA for the ODN Build*

**100**
*Organisations Engaged*
*Including Major Partnerships with ECCO and ESOP*

**ECCO-CODE Report** on
Advancing Pragmatic Outcomes Measurement

**Collaboration with ESOP**
Reviewing and evaluating the regimen mapping methodology and algorithms


ECCO-CODE-Project

ESOP Collaboration

### ADDRESSING FINANCIAL SUSTAINABILITY

**The ODN's key features support the implementation of new access and payment models**
e.g. Indication based pricing or duration of therapy based payment models

**Engagement with European Payers**
to understand their level of receptivity to flexible payment models and the implementation requirements they anticipate e.g. data sources and endpoints

**Supporting OHE Research**
Economics of Innovative Payment Models Compared to Single Pricing of Pharmaceuticals


OHE Research

## Conclusion

- Low latency is critical to helping the oncology community build a Learning Health System, accelerate research and innovation, and help enable flexible payment models.
- The ODN is the only European RW data initiative that creates analyses from low latency data on how cancer patients are being treated in today's clinical practice from a connected network of treatment centres.
- RWD from the ODN will enable the oncology community to:
  - ✓ Generate timely insights which can help to inform clinical best practice and derive increased value from innovative oncology products
  - ✓ Assess utilization of anti-cancer medicines, prescribing patterns, adherence to guidelines
  - ✓ Benchmark data across regions and countries
  - ✓ Accelerate research and innovation
  - ✓ Develop innovative agreements to ultimately improve patient access

1. Aitken M, Kleinrock M, Nass, D et al. Global Oncology Trends 2019: Therapeutics, Clinical Development and Health System Implications. Parsippany, NJ: IQVIA Institute, 2019.
2. EFPIA, Healthier Future. Healthier future: The case for outcomes-based sustainable healthcare. 2016. https://efpia.eu/media/25156/healthier-future-the-case-for-outcomes-based-sustainablehealthcare.pdf.
3. Eichler, Hans-Georg, et al. "Data Rich, Information Poor: Can We Use Electronic Health Records to Create a Learning Healthcare System for Pharmaceuticals?" *Clinical Pharmacology & Therapeutics*, vol. 105, no. 4, 2018, pp. 912–922., doi:10.1002/cpt.1226

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