How can we achieve a high level of interoperability in oncology data and use it to improve cancer research and patient outcomes? By standardizing the data collected and shared across many systems—by patients, clinicians, and other stakeholders—in a way that improves cancer care for all.

Recognizing the value of a common data standard and language for oncology, a team of nonprofit organizations created mCODE and is expanding its use across the country. mCODE is built on the core cancer data elements determined by oncologists to be critical to analyzing patient characteristics, treatments, and outcomes across patients and practices to improve treatment and care coordination. These data elements are collected at the point of care in electronic healthcare records (EHR) and are accessible through Fast Healthcare Interoperability Resources (FHIR™) standard interfaces.

There are many opportunities to lead the implementation of mCODE, advance its use, and determine its direction.
Interoperable data and systems will allow stakeholders, such as clinicians and researchers, to analyze real-world data from millions of cancer patients—rather than just the limited data from clinical trials—to make critical decisions.

Access to data on diverse patient cohorts is critical to informed treatment decisions between clinicians and patients, new research, including drug development, support guidelines and decision support tools for clinical use, and health insurance coverage decisions.

Who’s on the mCODE Team?
A team of health and IT experts has established mCODE’s viability and value. But it will take the entire oncology community to achieve its full benefit by adopting mCODE.

The mCODE Executive Committee (EC) includes representatives from the Alliance for Clinical Trials in Oncology, the American Society of Clinical Oncology, the American Society for Radiation Oncology, and MITRE. In addition, a broader group of stakeholders makes up the mCODE Council, which advises the EC and provides thought leadership.

The team also includes members of Codex® (Common Oncology Data Elements eXtensions). Codex is a new HL7 FHIR Accelerator that is bringing stakeholders together to expand mCODE by extending the core data model to specific use cases. For more details, please go to the Codex site, www.hl7.org/codex.

Ongoing Pilots to Test mCODE
ICAREdata™ the study The mCODE team is working with the Alliance for Clinical Trials in Oncology on the Integrating Clinical Trials and Real-World Endpoints (ICARE) data project. The goal is to enable clinical oncology research by demonstrating the low-burden prospective collection of high-quality mCODE-based real-world data.

Compass™ MITRE has developed Compass, an mCODE-based FHIR implementation and Substitutable Medical Applications and Reusable Technologies (SMART)-on-FHIR application. Compass extracts mCODE data elements from EHRs to deliver reports to providers and patients on treatments of similar cohorts of patients.

Camino™ MITRE is also developing Camino, a SMART-on-FHIR application that provides computable standards-based clinical pathways. Camino shows the oncologist both where the patient is on the clinical pathway and the recommended treatment options.

Join Us
For more information, or to see the Version 1.0 mCODE open source data model, please contact mcode@mitre.org or see www.mcodeinitiative.org.

*mCODE is a trademark of the American Society of Clinical Oncology.

We started with cancer but we hope to expand this core data model to other diseases, such as cardiology. Our ultimate goal is to enable a learning health system fueled by interoperable EHR data that leads to improved patient care.

MITRE’s mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.