

CodeX Use Cases



Active CodeX Use Case projects are projects where requirements, models, FHIR IGs, implementations and pilots are currently under development by interested stakeholders.

Potential future CodeX Use Cases are in the *Discovery* Phase, where stakeholders are requested to engage, identify the biggest challenges and necessary participants, and to propose future Active Use Case projects.

All are Use Cases that promise to substantially improve cancer care and research through community alignment around the use of mCODE™ and necessary extensions for sharing of standard, structured cancer data. CodeX members prioritize and select Use Cases for development based on:

1. Potential impact to fill a compelling and urgent need (value)
2. How quickly value can be demonstrated through implementation and pilots (speed)
3. How committed the community is to lead and provide resources (community drive)

Contact [Steve Bratt](#) or [Greg Shemancik](#) to learn more about any of the Use Cases below. All are welcome to join the [CodeX/mCODE Community of Practice](#).

Use Case Projects in *Active Community Development*

Use Case	Description	Usage/Implementation Notes
mCODE++ Extraction	Enable existing EHRs and other systems to provide cancer patient data that conforms to the standard defined by the mCODE FHIR IG.	Defines a software engineering framework and reference implementation for health IT developers to retrieve and share mCODE conformant data from existing systems. Extract on is often discussed within the CodeX/mCODE Community of Practice and is critical for almost all of the use cases raised by the community to date.
EHR Endpoints for Cancer Clinical Trials	Reduce and potentially eliminate manual and/or duplicate data entry into case report forms (CRF).	Use clinical treatment data captured in the EHR to derive and/or compute clinical trial endpoints. mCODE and CodeX extensions support this data. Scenarios of interest include CAR-T therapies, rare diseases and others. The ICAREdata Study is the lead project for this use case.
Integrated Trial Matching for Cancer Patients and Providers	Improve capability for patients to find clinical trials for which they may be eligible.	Define and structure key trial enrollment criteria; incorporate into EHRs and structured patient reported data workflows to improve reliability and automated matching capabilities, reducing manual data entry to find clinical trials potentially important to patients.

Use Cases in *Active Community Planning*

Use Case	Description	Usage/Implementation Notes
Cancer Registry Reporting	Enable low-burden, standardized reporting of cancer data from cancer centers to registries that are aggregating data for different reasons.	Consider use of mCODE and extensions for registry reporting to assess cross-center standards of care, starting with CAR-T therapy. Other potential scenarios could expand scope to support population health, clinical trials, post-market surveillance, quality reporting, comparative effectiveness and more.
Radiation Therapy Treatment Data for Cancer	Enable sharing of critical radiation therapy treatment data for care coordination or data reuse (research, quality measurement, payer-required reporting).	Develop, test and deploy open data standards that enable interoperable, multi-purpose exchange of radiation treatment summary data for care coordination and data reuse.
Oncology Clinical Pathways (OCP)	Enable clinicians to use an oncology clinical pathway application that accurately navigates to recommended treatments using structured data in the EHR.	Define and structure clinical oncology data required to evaluate branch-points. Use mCode and CodeX to define data elements and incorporate the new data into existing workflows.

Oncology Clinical Pathways: Prior Authorization Support	Enable automatic exchange of clinical oncology data recorded by providers, to payers.	Da Vinci HL7 FHIR Accelerator has developed a solution for the generic use case. This use case extends the generic use case with mCODE and CodeX for provider-payer data exchange in support of care for cancer patients.
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Use Cases in *Discovery*

Use Case	Description	Usage/Implementation Notes
Alternative Payment Model Data Reporting	Facilitate clinical practice reporting to registries and payer repositories governed by oncology payment models, such as chemotherapy episodes.	Define and structure oncology APM required data using mCODE and CodeX extensions; incorporate into EHR workflows.
Drug Value Based Agreements	Operationalize drug value based agreements for clinicians, payers, and pharma.	Define and structure relevant real world data using mCODE and CodeX extensions to enable collection in EHRs, making it available for automated outcome evaluation.