eMaRC Plus

A free software tool from the CDC's NPCR that uses NLP to process pathology and physician reports (HL7/CDA) to identify and automatically code reportable cancer cases for central registries.

https://example.com/1762583716458

Overview

eMaRC Plus (Electronic Mapping, Reporting, and Coding Plus) is a key component of the CDC's National Program of Cancer Registries (NPCR) Registry Plus software suite, provided at no cost to central cancer registries (CCRs), laboratories, and hospitals. Its primary function is to efficiently receive, process, and auto-code electronic cancer pathology reports and physician reports to streamline cancer surveillance data collection.

Key Features and Capabilities

The software includes two main modules:

ePath Reporting Module: This module is designed to import and process cancer pathology reports received in the Health Level Seven (HL7) format, including both narrative reports and electronic Cancer Protocols (eCPs) following the NAACCR Volume V Standard. It utilizes a base NPCR Natural Language Processing (NLP) model, enhanced by the Negation Terms Finder (NegEx) algorithm, to text mine the reports. The NLP functionality automatically determines case reportability and autocodes key tumor data elements such as histology, primary site, behavior, and laterality, translating HL7 data into NAACCR format to create partial abstracts.

Physician Reporting Module: This module handles reports from physician offices received in the HL7 Clinical Document Architecture (CDA) format. It imports, parses, and maps these data elements to NAACCR standards, automatically merging multiple reports for the same patient and tumor.

Target Users and Use Cases

The primary intended users are **Central Cancer Registries** in the United States, which use the tool to automate the labor-intensive process of identifying and abstracting cancer cases from high-volume electronic reports. Pathology laboratories and hospitals also use versions of the software (like eMaRC Plus Lite) to filter their narrative reports and identify reportable cases before transmission to the central registries. The software can be implemented locally as a desktop application or used as an Application Programming Interface (API) for integration into other systems.

Technical Details

eMaRC Plus is a desktop application that works with 32- and 64-bit Microsoft Windows operating systems. The CDC is also developing a cloud version to support new standards like HL7 FHIR Cancer Pathology Data Sharing. The software's ability to create NAACCR-formatted abstract records directly from electronic clinical documents significantly improves the quality, completeness, and timeliness of cancer data available for public health surveillance and research.

Key Features

- HL7 and HL7 CDA File Processing

- Natural Language Processing (NLP) for Text Mining

- Automated Cancer Case Reportability Determination

- Autocoding of Tumor Histology, Site, Behavior, and Laterality

- ePath Reporting Module

- Physician Reporting Module

- Mapping and Translation to NAACCR Data Elements

- API for Local Implementation

Pricing

Model: free

Free software provided by the CDC's National Program of Cancer Registries (NPCR) to central cancer registries, laboratories, and hospitals.

Target Company Size: medium, enterprise

Integrations

HL7, HL7 CDA, NAACCR XML Data Exchange Standard, PHINMS, SNOMED CT

Compliance & Certifications

HL7, HL7 CDA, NAACCR Standards, ONC Cures Act Alignment