PEDIATRIC CANCER REGISTRATION CURRICULUM

To provide a scalable solution for initial and continuing education, we developed a customized pediatric cancer registry curriculum for personnel in these settings to support the launch of the hospital-based, SJCARES Pediatric Cancer Registry. The curriculum has four broad learning objectives: a) explain what a cancer registry is and its purpose; b) state the importance of cancer registration and follow-up in fighting cancer; c) describe cancer registration operations; d) apply coding and staging standards for cancer registration.

Structure:
- Hosted via Cure4Kids as virtual classroom.
- Five module Data Abstraction and Introductory Course to Pediatric Oncology and Medical Terminology developed for data entry specialists with limited medical background.
  - For more information on the data abstraction and introductory course, use this link: https://www.cure4kids.org/ums/home/portal/

Curriculum: Pediatric cancer registry course consists of seven modules, 20 lessons, and 59 learning objectives:

- Module 1: Introduction to Cancer Registration

  (1) Lesson 1: Purpose, Design, Types of, and Uses for Cancer Registries
  Objectives:
  - Describe what a cancer registry is designed to do (purpose)
  - List the different types of cancer registries
  - Compare the purposes of different types of cancer registries
  - Outline the uses of cancer registry data in research and cancer control
  - Explain the importance of each type of cancer registry and how they can integrate to improve public health

- Module 2: Cancer Registry Basics

  (1) Lesson 1: Cancer Classification
  Objectives:
  - Explain why cancers are classified
  - List the different systems of cancer classifications
  - Describe the relationships between different classification systems for coding and presentation purposes
  - State how the interpretation of the data would vary based on the type of classification used
(2) Lesson 2: Data Elements
   Objective: List the essential data elements that are collected by cancer registries

(3) Lesson 3: Data Sources
   Objectives:
   - Identify the multiple sources of information to correctly register a childhood cancer case
   - State different scenarios where the integration of multiple sources of information are necessary to obtain the most accurate information

(4) Lesson 4: Determining Class of Case
   Objectives:
   - Define the concepts of analytic and non-analytic cases
   - Critique the implications of miscategorization when class of case is incorrectly assigned

(5) Lesson 5: Quality in Data Collection
   Objectives:
   - Identify determinants of data quality
   - Define the difference between quality assurance and quality control
   - Identify the three types of errors
   - Apply strategies to improve data quality

Module 3: Coding Rules for Cancer Registration

(1) Lesson 1: Rules for Topography
   Objectives:
   - Locate the topography coding rules for ICD-O
   - Apply the rules for topography coding using ICD-O
   - State common mistakes when coding cancers related to topography using ICD-O

(2) Lesson 2: Rules for Morphology
   Objectives:
   - Locate the morphology coding rules for ICD-O
   - Apply the rules for morphology coding using ICD-O
   - State common mistakes when coding cancers related to morphology using ICD-O
Module 4: Staging

(1) Lesson 1: The Importance of Pediatric Cancer Staging
Objectives:
- Explain why cancer staging is important to understanding cancer outcomes
- State the reasons why multiple childhood cancer staging systems exist
- Identify what types of information are used to stage a case
- Describe how accurate cancer staging can affect decisions for cancer treatment

(2) Lesson 2: The Toronto Guidelines
Objectives:
- Explain why the Toronto Guidelines for childhood cancer staging were developed
- Locate resources to help implement the Toronto Guidelines
- Apply the Toronto Guidelines to appropriately stage common childhood cancers

(3) Lesson 3: Staging for Pediatric Cancer
Objectives:
- Explain how the TNM cancer staging system works
- State the common pediatric cancer-specific staging systems
- Identify resources to help with childhood cancer staging assignment

Module 5: Treatment

(1) Lesson 1: Types of Treatment Modalities
Objectives:
- Explain the principles of cancer therapy
- State the three major modalities to treat childhood cancer
- Explain considerations that go into determining how to treat cancer

(2) Lesson 2: Chemotherapy in Cancer Treatment
Objectives:
- Describe basic principles of how chemotherapy treats cancer
- Explain the difference between chemotherapy and supportive care medication
- Identify resources for determining why a medication is being used

(3) Lesson 3: Radiation and Surgical Therapy
Objectives:
- Explain the principles of radiation treatment
- State different types of common surgical sub-specialties involved in a childhood cancer treatment
(4) Lesson 4: Determining Palliative Intent
   Objectives:
   ☐ Explain the difference between palliative and curative intent of cancer treatment
   ☐ Identify whether a patient is receiving therapy for palliation or curative intent

☐ Module 6: Follow-Up

(1) Lesson 1: Types and Methods of Follow-Up (Common Scenarios)
   Objectives:
   ☐ State the reason follow-up is important for cancer registration
   ☐ Explain the difference between active and passive follow-up
   ☐ Discuss the advantages and disadvantages of both types of follow-up
   ☐ Identify the different sources of information used for each method of follow-up

(2) Lesson 2: Understanding Lost-to-Follow-Up and Abandonment
   Objectives:
   ☐ Explain the definition of childhood cancer treatment abandonment
   ☐ Explain the definition of lost-to-follow-up
   ☐ Identify the implications of misclassification between lost-to-follow-up and abandonment

(3) Lesson 3: Cause of Death
   Objectives:
   ☐ State the reason cause of death is an important variable to capture
   ☐ Apply basic principles for cause of death reporting

☐ Module 7: Measuring Health Events in Cancer Epidemiology

(1) Lesson 1: Common Health Outcomes in Cancer Epidemiology
   Objectives:
   ☐ List the common events measured in cancer epidemiology
   ☐ Explain how the occurrence of health events in cancer epidemiology are measured
   ☐ Differentiate between overall cancer survival and event-free survival

(2) Lesson 2: Implications of Registry Data on Health Policy and Cancer Control Planning
   Objectives:
   ☐ Describe the roles of hospital and population-based cancer registries for cancer surveillance
   ☐ Explain the application and relevance of population-based cancer registry data for population-based health services planning
   ☐ Explain the application and relevance of hospital-based cancer registry data for assessing the quality and provision of cancer care delivery
Additional SJCARES Registry Specific Training:

- 8th module on TrialMaster platform functionality and usage available.
- Thirteen practice cases based on dummy patient charts created to ensure practical application of knowledge for all hospital site registry team members.

Use Case Scenarios:

- For Registries:
  - Three (3) educational training tracks by Registry Role (MD Monitor, Data Entry Specialist) and team member professional background

<table>
<thead>
<tr>
<th>MD Monitor (must be a physician)</th>
<th>Data Entry Specialist with medical (MD/RN) professional background</th>
<th>Data Entry Specialist without medical background</th>
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<tbody>
<tr>
<td>Data Abstraction Course, Intro to Pediatric Oncology Module: Optional</td>
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<td>Data Abstraction Course, Intro to Pediatric Oncology Module: Required</td>
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<td>Data Abstraction Course, Intro to Clinical Data Abstraction Module: Optional</td>
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- For Short Courses/Group Training:
  - Opportunity to set up training room for antecedent training opportunities before in-person workshops or training sessions.