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Evolution of the Cancer Registrar in the Era of Informatics (March 2021)

The purpose of this article is the role of the registrar in the collection and reporting of critical cancer data and how registrars are currently using informatics to enhance their work. This article describes how informatics can be leveraged in the future and how registrars play a vital role in meeting the increasing demands placed on them to provide timely, meaningful, and accurate data for the cancer community.

COVID-19 Evidence Accelerator: A parallel analysis to describe the use of Hydroxychloroquine with or without Azithromycin among hospitalized COVID-19 patients (March 2021)

The COVID-19 Evidence Accelerator convened by the Reagan-Udall Foundation for the FDA, in collaboration with Friends of Cancer Research, assembled experts from the health systems research, regulatory science, data science, and epidemiology to participate in a large parallel analysis of different data sets to further explore the effectiveness of these treatments.
Considerations for Use of Real-World Evidence in Oncology: Lessons Learned from Friends of Cancer Research (FOCR) Collaborations (October 2020)

A white paper written by Friends of Cancer Research—in collaboration with Syapse and other leading organizations—draws on lessons learned from research pilot projects designed to advance the use of real-world evidence in oncology.

FOCR Research & Reimbursement in the Age of Precision Medicine (September 2018)

This whitepaper addresses the need to establish minimum analytical and clinical data elements to improve transparency in test performance and expand sources of evidence collection that could ensure patient and provider confidence. This whitepaper focuses specifically on next generation sequencing-based tests intended to detect somatic mutations in clinically actionable genes in solid tumors.
PRESENTATIONS

Pneumonitis incidence in patients with non-small cell lung cancer treated with immunotherapy or chemotherapy in clinical trials and real-world data (April 2020)

We compared treatment associated pneumonitis (TAP) related to immune checkpoint inhibitors (ICI) or chemotherapies (chemo) in advanced non-small cell lung cancer (aNSCLC) patients (pts) with and without (+/-) past medical history (PMH) of Pn, using data from clinical trials (CT) and real world data (RWD).

Using Real-World Data (RWD) from an integrated platform for rapid analysis of patients with cancer with and without COVID-19 across distinct health systems (July 2020)

Reports suggest worsened outcomes in patients with cancer and COVID-19, varying by geography and local peak dynamics. Cancer in patients diagnosed with COVID-19 associated with increased risk of severe events with even greater risk among patients with metastatic disease and those with recent treatment and higher incidence of COVID-19 reported among Black Americans.
FEATURED ABSTRACTS

A Hybrid Ontology and Graph System Enabling Precision Oncology Applications Through Real-Time Incorporation of Omics Biomarkers into a Scalable Real-World Data Platform (April 2019)
Abstract can be found here.

Real-World Treatment Patterns and Clinical Effectiveness of Palbociclib Plus an Aromatase Inhibitor as First-Line Therapy in Advanced/Metastatic Breast Cancer: Analysis From the Syapse Learning Health Network (March 2021)

Reportable Actionability Versus Pragmatic Actionability: Implementing Precision Medicine at Three Large Health Systems (June 2018)
Abstract can be found here.
ABSTRACTS

Overall survival in high and very high PD-L1 expressing patients with advanced non-small cell lung cancer treated with immune checkpoint inhibitors in a real-world data setting (May 2020)

Clinical trials show improved survival for advanced non-small cell lung cancer (aNSCLC) patients whose tumors are positive for PD-L1 expression when treated with immune checkpoint inhibitors (ICI), including pembrolizumab (Pb) and nivolumab (Nb). It is unclear whether relatively higher PD-L1 expression by tumor proportion score (TPS) is associated with better response to treatment, and whether this can be generalized to a real-world setting.

Outcomes in patients with advanced non-small cell lung cancer (aNSCLC) and high PD-L1 expression treated with immune checkpoint inhibitor monotherapy: An FDA-pooled analysis (May 2020)

Higher PD-L1 score ≥ 50% predicts for greater benefit to immune checkpoint inhibitor (ICI) therapy in first line (1L) treatment of aNSCLC. It has recently been reported that PD-L1 score ≥ 90% predicts for even greater benefit to 1L ICI monotherapy (Aguilar et al., 2019). We examined pooled clinical trial databases to examine the relationship between high PD-L1 expression across multiple ICI monotherapies in 1L and second line (2L) treatment of aNSCLC.

Molecular alterations with hyperprogression in lung cancer patients treated with immune checkpoint inhibitors in a large health system (May 2020)

Immune checkpoint inhibitor (ICI) therapy has become a mainstay of lung cancer treatment. However, not all NSCLC patients (pts) benefit, a subset paradoxically experiences accelerated tumor growth while on immunotherapy. Hyperprogression (HP) refers to accelerated tumor growth on ICI with worsening clinical status.

Overall survival (OS) in advanced non-small cell lung cancer (aNSCLC) patients treated with frontline chemotherapy or immunotherapy by comorbidity: A real-world data (RWD) collaboration (May 2020)

Friends of Cancer Research convened 9 data partners to identify data elements and common definitions for real world (rw) endpoints to evaluate populations typically excluded from clinical trials. Here we report on rwOS by frontline treatment and comorbidities.


Leveraging data from a collaboration with 9 data partners, Friends of Cancer Research convened the Real-world Evidence Pilot 2.0, to examine trends and real world (rw) data endpoints in immunotherapy (IO) use for the front line treatment of aNSCLC.
An Algorithmic Approach to Deriving Line of Therapy in a Real-World Data Set for Non-Small Cell Lung Cancer (June 2018)

Real World Data (RWD) is being used for outcomes research and regulatory submissions. A key variable needed to understand treatment outcomes is Line of Therapy (LoT). However, LoT is generally not captured in RWD sources such as electronic health records (EHR) or claims data, and is typically derived using manual abstraction. To determine whether an automated approach to LoT derivation is possible, we created an algorithm and applied it to patients (pts) in the Syapse Learning Health Network.

Deriving Real-World Oral Antineoplastic Treatment Endpoints: A Comparison of Automated Data Extraction Versus Manual Chart Abstraction (June 2018)

Real world data (RWD) is increasingly being used to generate evidence that informs clinical care. Calculating outcomes measures using RWD, such as time-on-treatment (ToT), requires accurate medication start/end dates. Whereas intravenously administered medication dates are typically available, dates for oral antineoplastics (OANs) are challenging as they are filled by specialty pharmacies and documented separately. To determine the feasibility of automated ToT extraction, we used the Syapse Learning Health Network to compare the utility of automated chart extraction (ACE) and of manual chart abstraction (MCA) from the electronic health record (EHR) in providing high-quality OAN data.

Successful Automated Normalization of Cancer Outcomes for Half a Million Patients Across Four Disparate Health Systems (June 2018)

The lack of interoperability among different electronic medical record (EMR) systems remains a challenge to fulfilling the promises of precision oncology. Typically, cancer outcomes data is stored as unstructured information in a multitude of inconsistent fields across EMRs. This prevents the integration of outcomes into the treatment decision-making process. To overcome this challenge, we leveraged the Syapse ontology, a data model that unifies biomedical data. We report our successful efforts to unify outcomes data across a large network of health systems.
The Role of Real-World Evidence in Clinical Care: A Survey of Oncology Leaders (June 2018)

Many health systems seek the ability to share and learn from real-world evidence, or aggregated cancer patient data, to improve patient outcomes. Although precision medicine initiatives are becoming more commonplace at large health systems, there is limited data defining the attitudes of health system leaders on their views of precision medicine. To this end, the Health Management Academy conducted a survey of oncology leaders to explore their views on the application of real-world evidence in clinical oncology.

Design and Implementation of an Informatics Infrastructure for Actionable Precision Oncology (June 2015)

Precision medicine has the potential to revolutionize cancer care by matching the right patient to the right therapy. Using genomics in routine care to guide therapy selection requires decision-support tools to deliver simple guidance based on complex data in real-time in the clinical workflow. Electronic health records do not support precision medicine, and critical data remains siloed in non-searchable systems.
Data Capture at Seoul National University Hospital (SNUH) (October 2018)

As pioneers in precision medicine, SNUH opted for close ongoing collaboration with Syapse beyond initial implementation requirements to continue to refine and improve its precision medicine data. Integrating with the Syapse platform gave SNUH visibility into the current state of clinical and molecular data and how it was being documented, leading to key process improvements across the organization to capture higher-quality data.

Precision Oncology Case Study: Aurora Health Care (March 2018)

Oncology leaders at Aurora recognized the benefits of implementing a precision medicine software solution to facilitate the utilization of molecular panel data, ultimately implementing the Syapse Precision Oncology solution.
Syapse works with leading health systems, life sciences companies, and regulators to explore opportunities to use real-world evidence to improve the outcomes of cancer patients. By bringing these organizations together into the Syapse Learning Health Network™, Syapse has built one of the world’s largest networks with a goal to improve outcomes in cancer care through improved precision medicine. Syapse and its partners are working towards a future in which all cancer patients have access to the quality of care they need.

You can also visit our blog where we discuss the latest in furthering the use of real-world evidence, insights from the Syapse Learning Health Network and how we are improving outcomes for all patients: [https://www.syapse.com/company/blog](https://www.syapse.com/company/blog)