

# Mapping the Landscape of Digital Technologies in Oncology

## Study Results

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## Abstract

Lately, healthcare providers have been inundated with a plethora of digital technology solutions designed to enable successful practice transformation to value-based care, deliver short and long-term financial value, and improve practice workflow efficiency. However, the sheer number of digital technology offerings in the market makes it difficult to sort through and understand the best fit for a practice's need.

Therefore, we set out to formally identify and catalogue the digital healthcare players and map the landscape of technology applications specific to value-based oncology care. During the 6-week period, November 1 to December 13, 2019, we invited digital technology companies serving the oncology/cancer care sector to respond to an electronic survey questionnaire in which respondents were asked to identify the features of their oncology-specific digital health offering(s) and the functional domain(s) in which they operate. This report summarizes our survey findings and offers a catalogue of technology companies servicing oncology and their expertise within their functional domains.

## Backdrop: Digital Health Revolution

Lately, healthcare providers have been inundated with a plethora of digital technology solutions designed to enable successful practice transformation to value-based care, that is, care in which providers are held accountable for improved quality and improved outcomes at reduced overall costs.

However, it is often difficult to sort through the various digital technology offerings. What does the digital product or service actually do to advance the value-based mission, and where does the technology fit within the larger landscape of digital health?

For purposes of this report, we propose the following definition of Digital Health: *the convergence and integration of digital technologies with healthcare to enhance the efficiencies and effectiveness of healthcare delivery. The discipline involves the use of information and communication technologies to help address health problems and challenges faced by populations.*

The transition to today's value-based care paradigm is enabled, in part, by a parallel digital health revolution. Value-based care requires a command of large volumes of "big data," often difficult to access

and maintain. Achieving success in value-based care has become dependent on digital technologies that facilitate the rendering, curating, analyzing and reporting on high volumes of data associated with value-based care undertakings in order to drive meaningful practice action. In short, you can't accomplish value-based care without a digital technology infrastructure.

## What We Did: Digital Technology Industry Survey

We set out to formally identify and catalog the digital tech players and plot the landscape of digital technology applications specific to value-based oncology care.

During the 6-week period, November 1 to December 13, 2019, we invited digital technology companies serving the oncology/cancer care sector to respond to an electronic survey questionnaire in which respondents were asked, among other things, to identify the features of their oncology-specific digital health offering(s) and to identify the functional domain(s) in which they operate. Throughout this report, we have replicated information provided by survey respondents about their products and services. In some instances where product descriptions were not made available via the survey, product information was obtained through other means (e.g. from the respective company's website). The listing of a company in this report does not in any manner represent an endorsement of the referenced digital technology product or service. The survey tool deployed to elicit responses to the study can be found at: <https://oncology-tech.ccbs-survey.com/>

## Digital Health: Functional Domains

We have identified six functional domains in the oncology-specific digital health ecosystem. Some digital health companies provide technology solutions in more than one of the domains. The six domains are identified below, along with representative examples of oncology-specific digital technology companies within each domain. Further description of the functionality of each product or service by domain and by company can be referenced in **Exhibit A (see page 8)**.

### **The six functional domains:**

1. Electronic medical record (EMR), specific to oncology
2. Clinical, Quality & Cost Analytics
3. Practice Management
4. Clinical Support
5. Patient Engagement, Monitoring & Navigation
6. Clinical Trials/Research

### **Relative Positioning of Companies within Their Domain**

Respondents to the digital technology survey were asked to identify the number of customers using their technology and the time that the technology has been on the market. We felt that these two factors would provide a sense for the experience and staying power of the digital technology identified. We have not independently verified the self-reported data regarding number of customers and time to market, but have instead relied solely on the data provided by the survey respondent.

## All survey respondents, grouped by functional domain

<p><b>EMR, SPECIFIC TO ONCOLOGY</b></p>	<p><b>CLINICAL, QUALITY &amp; COST ANALYTICS</b></p>	<p><b>PRACTICE MANAGEMENT</b></p>
<p><b>CLINICAL SUPPORT</b></p>	<p><b>PATIENT ENGAGEMENT, MONITORING, NAVIGATION</b></p>	<p><b>CLINICAL TRIALS &amp; RESEARCH</b></p>

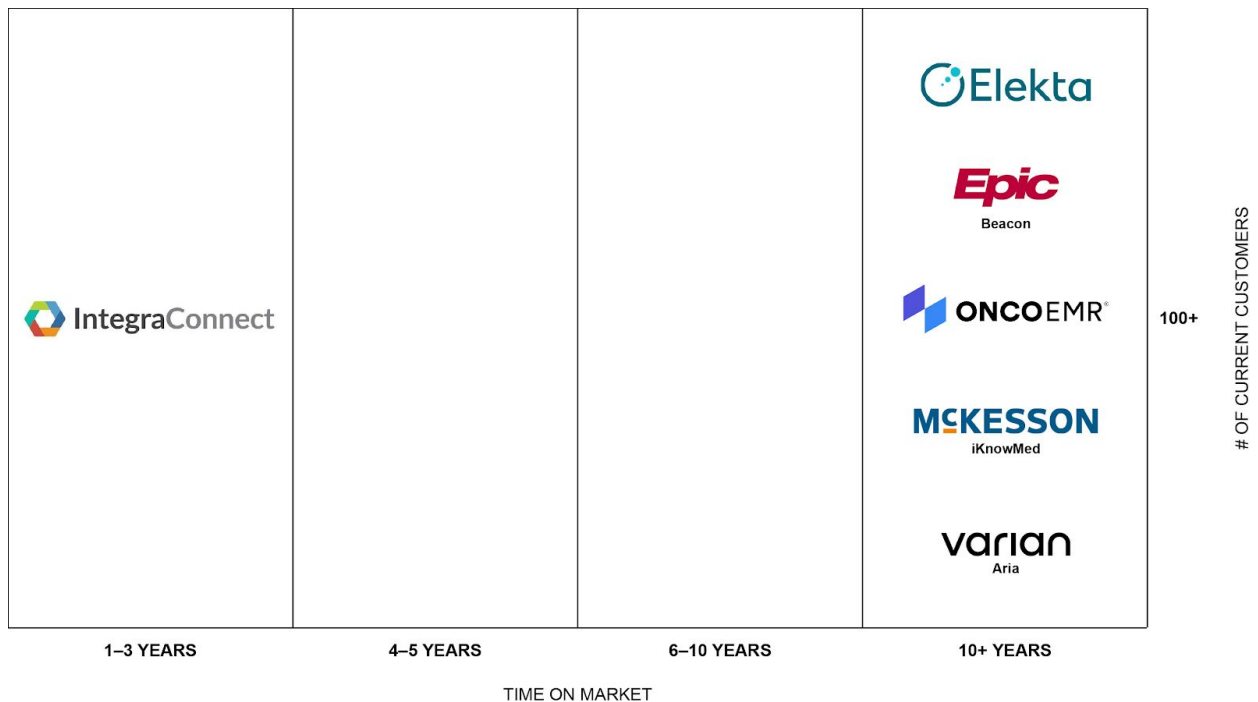
## Domain 1: Electronic medical record (EMR), specific to oncology

Think of an electronic medical record (EMR) as a systematized collection of patient and population electronically-stored health information in a digital format. Such records can be shared across different health care settings.

### Observation

The preponderance of the leading oncology EMRs have been in service for at least 10 years and all have a significant client base. One of the newer market entrants, while in the market for a shorter time period (under 3 years), has also garnered a respectable market footprint.

**The following are examples of leading oncology-specific EMR platforms available to oncology/cancer care providers:**



- Elekta – MosaiQ
- EPIC – Beacon Oncology Information System
- Flatiron Health – OncoEMR
- IntegraConnect – EHR for Oncology
- McKesson – iKnowMED
- Varian Medical Systems – Aria OIS

## Domain 2: Clinical, Quality & Cost Analytics

A new “cottage industry” of oncology analytics/informatics services has evolved to service the value-based care data analytics needs of providers since value-based care requires a level of data analytics capabilities not typically found within oncology provider organizations. Data analytics/informatics services currently provided include claims/actuarial analysis, risk stratification, quality measures and reporting, Oncology Care Model/Alternative Payment Model analytics and performance management.

### Observation:

Many of the oncology data analytics services are offered as a value-added supplement to a core analytics function, for example data analysis support of a core practice management or GPO function. However there is a cluster of relatively new health data analytics firms that focus specifically on oncology alternative payment model analytics, the Oncology Care Model (OCM) in particular.

The following are examples of leading oncology-specific data analytics/informatics firms:

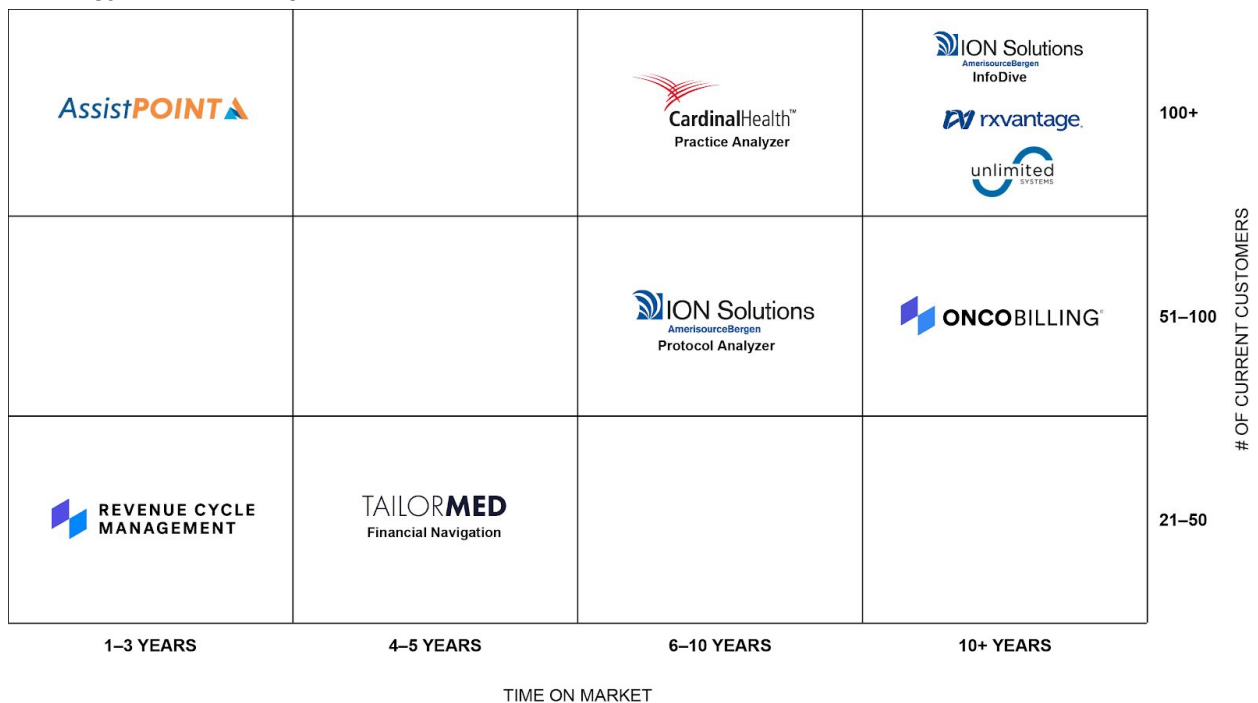
		 		100+
				51-100
   				6-20
				<5
1-3 YEARS	4-5 YEARS	6-10 YEARS	10+ YEARS	
TIME ON MARKET				

- Archway Health - Archway Oncology Care Analytics Suite
- DataGen - The DataGen OCM 360 Portal
- Cardinal Health - GPO Dashboard
- Cardinal Health - Regimen Analyzer
- Flatiron Health - Flatiron OCM Solution
- Flatiron Health - Data Connect
- HealthEC - Care Intelligence
- Integra Connect - Integra APM and MIPS Solution
- Integra Connect - Integra Intelligence
- ION Solutions - MIPS Reporting Services
- ION Solutions - SmartRx Analyzer
- iVantage Health Analytics - iVantage Performance Manager
- McKesson - Practice Insights
- The Chartis Group, Chartis Oncology Solutions Practice - ONC iQ
- Tuple Health - Tuple Health OCM Insights

## Domain 3: Practice Management

Digital technologies that enhance and support practice management are not a particularly new development, but they now enjoy elevated importance in tracking financial impacts in the value-based environment. The fundamental benefit of technology-enabled practice management products and services is to enable efficiencies and economies of scale in routine operations. We included in this category such functions as patient scheduling, practice management systems, billing and revenue cycle management, and patient financial counseling.

**The following are examples of leading practice management digital platforms available to oncology/cancer care providers:**



- Annexus Health - Assist Point
- Cardinal Health - Practice Analytics and GPO Contract Dashboard
- Flatiron Health - OncoBilling and Flatiron Revenue Cycle Management
- ION Solutions, an AmerisourceBergen Company - InfoDive, MIPS Reporting Services, IntelliDoseTxM, Nucleus Inventory Management System and Protocol Analyzer
- TailorMed - TailorMed Financial Navigation
- Unlimited systems - g4 Cloud™

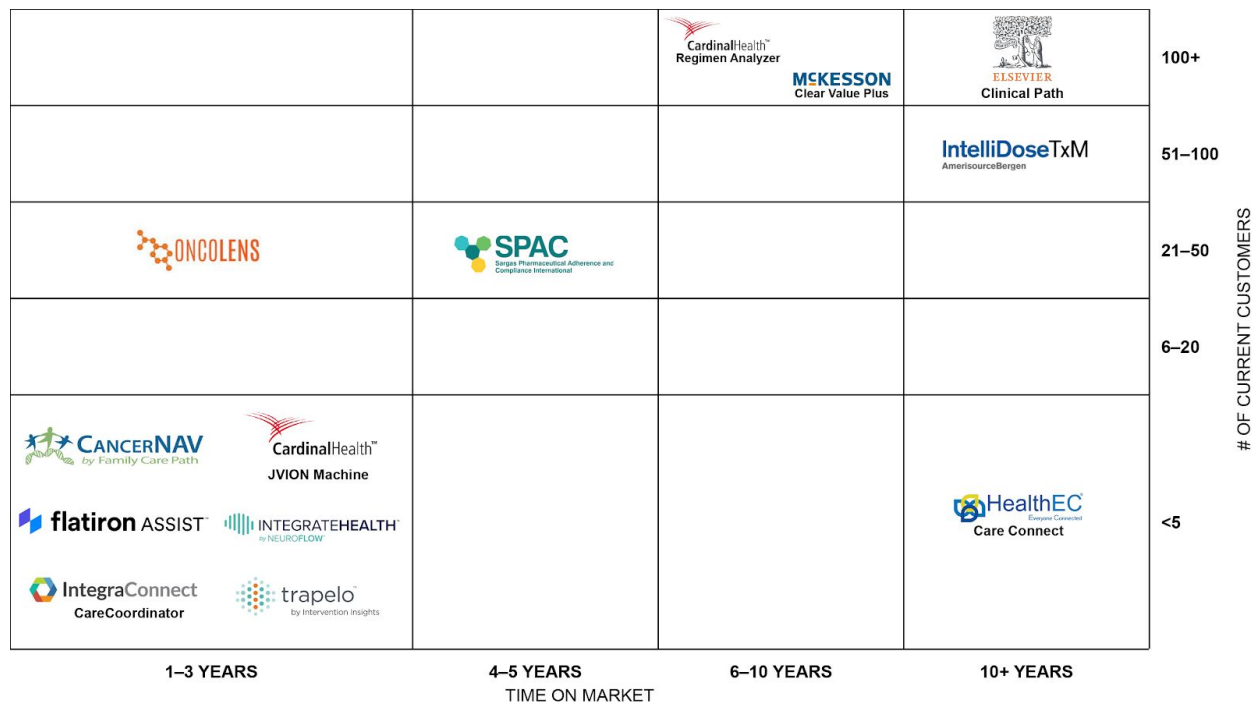
## Domain 4: Clinical Support

In the domain of clinical support, we have included digital technologies and services that enhance and support clinical functions. Technology-enabled Clinical Support services include clinical pathways, clinical decision support, case management, chronic care management and telehealth. Due to a lack of responses for oncology-specific telehealth services, we have included telehealth as a clinical support function: clinician-to-clinician or clinician-to-patient consultations or monitoring via telephonic means.

### Observation:

A number of digital clinical support functions are new to the market and appear to be a response to demand for clinical support for the value-based care and alternative payment model initiatives faced by providers of cancer care, OCM in particular. With regard to telehealth, it is possible that telehealth is not yet widely adopted in oncology or it may be that telehealth is actually being utilized, but is a function of another clinical support service. For example, digital patient navigation platforms provide support for symptom management and phone triage of treatment patients, which would in essence be a telehealth function.

### The following are examples of oncology-specific clinical support digital platforms:



- Cardinal Health – Jvion
- Elsevier – Clinical Path (formerly Via Oncology)
- Flatiron – Flatiron Assist
- HealthEC - Care Intelligence - CareConnect
- IntegraConnect - Care Coordinator
- Intervention Insights – Trapelo
- RxVantage
- Sargas Pharmaceutical Adherence & Compliance - SPAC International - SPAC Chronic Care Management Physician, Patient and Pharmacy Portals, Mobile Chronic Care Management, Chronic Care Management Cloud
- OncoLens

## Domain 5: Patient Engagement, Monitoring & Navigation

Patient engagement has been defined as “a concept that combines a patient's knowledge, skills, ability and willingness to manage his/her own health and care with interventions designed to increase activation and promote positive patient behavior” *per Health Affairs/RWJF Health Policy Brief, February 14, 2013*. Digital technologies are increasingly playing a significant part in enabling such interventions. We have classified in this functional domain digital technologies such as patient portal, patient navigation platform, patient reported outcomes (ePRO), remote patient monitoring, population health-related functions, patient wearables and mobile applications (mHealth).

The requirements of value-based care have generated an increased interest in digital solutions that help providers satisfy such requirements. In particular, digital technology solutions that enable patient navigation and patient reported outcomes have become popular.

**The following are examples of oncology-specific patient engagement, monitoring and navigation technologies and services:**



- Carevive
- Digidence – CarePrompter and ePRO
- Elly Health – Elly
- Family Care Path – CancerNav
- Flatiron Health – CareSpace
- Guideway Care
- Navigating Cancer – Navigating Care
- NeuroFlow - IntegrateHealth
- Patient Resource - Patient Resource Navigator
- SPAC International: Medication Adherence and Remote Patient
- Willowglade Technologies - Health Orchestrator / Personal Health Navigator



## Domain 6: Clinical Trials/Research

In recent years, digital technology in the clinical trials space has been developed to expedite trial feasibility and patient accrual workflows, especially through efforts to match prospective trial candidates with relevant open trials. We have included digitally-enabled clinical trials/research platforms in this domain.

**Some examples of digital technologies and services in this domain include:**



- Flatiron Health – OncoTrials
- HealthEC - Care Intelligence - Clinical Research as a Care Option (CRAACO)
- Sam S. Miller, M.D. - Breeze e Clinical Trials System
- SignalPath - SignalPath Research Consortium

# Digital Technology: Challenge Questions

In our digital technology survey, we asked respondents to identify the types of questions that they typically are asked at point of sale by prospective purchasers of their technologies and services. The vendor-identified questions may be ones that any prospective customer might pose when considering a digital technology offering.

## With Regard to Product Validation

- What are the benefits of your service to providers? To practice staff? To patients? To patient families?
- How have practices improved clinical, administrative, and/or financial operations and results when using your platform?
- Describe resource/people efficiency/quality improvement at practices resulting from use of your services.
- Provide some evidence/testimonial that your technology performs the way you claim it does (case studies, number of customers currently using the technology, etc.)
- How do you justify the cost? What is the return-on-investment - ROI?
- Please provide contact information for one or more reference site(s) with whom I can speak?

## With Regard to Product Implementation

- What is your implementation plan for us should we purchase your system?
- What have been the most common challenges during implementation and what best practices can you suggest to us?
- What are your hardware requirements for this solution and what are the associated costs with these requirements?
- How does the solution integrate or interface with other technologies (EMR, practice management system, clinical trials management system etc.)?

## With Regard to Ongoing Support

- What is your customer support model?
- What is the time frame for response?
- What training and support is available to my practice?

## With Regard to Data and Interoperability

- How current is the data in your product and which time frames are covered: retrospective, real-time, or prospective?
- What are the fees associated with implementation, interfaces, and maintenance?
- How do you keep up with the latest regulatory requirements and what is next on your product roadmap?

## Legal and Regulatory Framework

Digital technologies are advancing at a very fast pace. This is good news for providers seeking to offer patients cutting edge, high quality and convenient care as well as for patients who, but for remote digital connections, have traditionally experienced delayed and often incomplete communications from their providers. Unfortunately, the legal and regulatory framework in which these technologies must operate does not move as fast. There are three primary areas of legal and regulatory shortcomings that inhibit the spread and adoption of digital technology solutions in healthcare:

1. Payor coverage and reimbursement policies pertinent to digital technologies, while making some headway are not where they need to be to cover the full scope of available and high-quality services. For example, some state laws do not include both coverage and payment parity that require insurers to cover *and* pay for digital or remote health care in the same manner as in-person health care. While some states may claim to have parity, unless laws include both types, digital health service offerings may not be sustainable from a financial perspective. Further some payors only cover or reimburse services provided with specific types of technologies, such as real time audio and video and not asynchronous technology.
2. State licensing and practice requirements in multi-state setting can be burdensome and slow the expansion of digital health offerings. Generally, providers must be licensed in each state their patients are physically located. In a multi-state model this can require providers to maintain compliance with various state boards' licensure requirement and practice requirements. Further in the telehealth area, many states have specific requirements related to consent, notices, disclosures and record keeping that do not apply to the traditional in-person setting. Keeping up with these rules from different states, not to mention the costs of renewals and required CME credits, can be a significant task.
3. Finally, health care data, which is at the center of, and often key to the success of, these technologies is still subject to the privacy and security rules of HIPAA as well as state law which can often be more stringent. As digital health service offerings grow by incorporation of additional devices and other use and access points, risk areas for noncompliant disclosures increase. As such HIPAA security risk assessments should be continually updated and kept current. Further, as services are offered in multiple states, those states' privacy and security requirements must be reviewed as HIPAA compliance must not be enough. For example, some states have more stringent requirements on the protection and transmission of mental health records that surpass what is required by HIPAA.

Prior to implementing any digital health solution, each of the above impediments must be carefully considered. Legal and regulatory contribution by Emily Wein, Foley & Lardner, LLP.

## Study Limitations

We received 49 survey responses to oncology-specific digital technology products and services. Although this is a sampling of the landscape, the relatively small “n” of 49 is not likely representative of the full field of product offerings. We have relied on self-reported product descriptions and use data, but have not independently verified the product information reported by survey respondents.

## Moving Forward

Our study on Mapping the Landscape of Digital Technology in Oncology is a continuing effort and we invite firms that have not yet participated in the study to submit a survey response in order that they may be included in the next annual edition of the study report. Access survey at:  
<https://oncology-tech.ccbs-survey.com/>

## Conclusion

Responding to the concern expressed by oncology/cancer care providers that they were becoming overwhelmed by digital health product and service offerings, we set out to survey and map the ecosystem of digital technology in oncology. Our survey of the digital technology in oncology was responded to by 49 applicable oncology-specific products. We organized the responses by functional category and developed a summary of the functions of each respective product. This “mapping” of the landscape will hopefully be instructive to prospective purchasers of oncology-specific digital technology products and services as the buyers continue their transformation to value-based care.

## About the Authors

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Mr. Patel is the Founder & Chief Executive Officer of Sargas Pharmaceutical Adherence & Compliance (SPAC) International, which offers a technology platform which is interoperable among providers and can collect, share, and use health data to improve health, healthcare, and reduce costs. This SPAC technology helps make care coordination and real time symptom management feasible, scalable, and sustainable for value-based care.

**Ronald R. Barkley, M.S., J.D.** [rbarkley@ccbdgroup.com](mailto:rbarkley@ccbdgroup.com)

Mr. Barkley is a healthcare business advisor with particular expertise in oncology medical group practice and hospital/health system cancer service lines. Ron specializes in business transactions associated with healthcare services consolidation and operational integration. He has been instrumental in transitioning oncology clients to value-based care and alternative payment models, including the Oncology Care Model (OCM) program and oncology bundled pricing initiatives. Ron is a Co-Founder and Host/Organizer of the Cancer Center Business Summit, a thought leadership forum on matters of policy, technology, business strategy and business models in cancer care delivery  
[CancerBusinessSummit.com](http://CancerBusinessSummit.com)

**EXHIBIT A:**

## Schedule of Digital Technology Function, by Vendor

### Domain 1: Electronic Medical Record (EMR)

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
<p><b>Elekta</b> <a href="http://elekta.com/software-solutions">elekta.com/software-solutions</a></p>	<p>MosaiQ</p>	<p>MOSAIQ software uses a common database for chemotherapy and radiation oncology records affording a single point of access for patient data—crucial for patients receiving multiple types of treatments. With MOSAIQ Radiation Oncology, all patient information is collected and accessible, from diagnosis through treatment and follow-up. Elekta Care Management software helps you efficiently manage all aspects of your chemotherapy program. With MOSAIQ Medical Oncology, a single database aggregates all of your patient data, clinical regimens, and pharmacy information.</p>
<p><b>EPIC</b> <a href="http://epic.com/software">epic.com/software</a></p>	<p>Beacon Oncology Information System</p>	<p>Beacon Oncology Information System supports the specialized care and treatment of cancer patients. Clinicians can create treatment plans based on standard protocols, make treatment decisions based on comprehensive decision support information, and personalize plans to include treatment cycle and dosing schemes for both IV and oral medications.</p>
<p><b>Flatiron Health</b> <a href="http://flatiron.com">flatiron.com</a></p>	<p>OncoEMR®</p>	<p>Flatiron oncology-specific EHR designed by oncologists &amp; world-class engineers help practices operate smoothly, run efficient clinical trials, and stay one step ahead of healthcare changes. The speed and flexibility of our cloud-based technology allows us to develop quickly and safely, while maintaining the highest product quality. Our dedicated support and implementation teams keep practices at the center, making OncoEMR the Top-Rated in</p>

		Overall Satisfaction in the 2019 KLAS Medical Oncology Report.
<b>IntegraConnect</b> <a href="http://integraconnect.com">integraconnect.com</a>	EHR for Oncology	Integra Connect’s EHR for Oncology is tailored to fit practice workflows - including oncology-specific content and templates, treatment regimen management and data driven analytics – resulting in more efficient encounters and enhanced patient outcomes.
<b>McKesson</b> <a href="http://Mckesson.com/Specialty/Oncology">Mckesson.com/Specialty/Oncology</a>	iKnowMed <sup>SM</sup>	<p>iKnowMed helps oncologists operate more efficiently, boost financial performance and enhance patient safety. Developed in collaboration with oncologists, iKnowMed delivers:</p> <p>Secure web-based, mobile-optimized access to patient charts; Comprehensive point-of-care treatment decision support; Customizable features for integration into existing workflow. For value-based care models such as the Merit-based Incentive Payment System (MIPS) and the Oncology Care Model (OCM), product updates are delivered on time, and a dedicated team provides comprehensive regulatory support.</p>
<b>Varian Medical Systems</b> <a href="http://varian.com/Oncology">varian.com/Oncology</a>	Aria OIS	<p>ARIA® OIS combines medical, radiation and surgical oncology information into a complete, oncology-specific EMR that allows you to manage the patient's entire journey—from initial diagnosis through post-treatment follow-up. With the latest version of ARIA v15, we’ve re-engineered the software with security enhancements such as encrypted communication help protect patient data from malicious attacks, and secure logins with your existing clinical environment credentials to ensure up-to-date authentication. Varian Mobile empowers clinicians with access to their ARIA® clinical data from any location. View and interact with your appointments, tasks, patient summaries and much more.</p>

## Domain 2: Clinical, Quality & Cost Analytics

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
<p>Archway Health <a href="http://archwayhealth.com">archwayhealth.com</a></p>	<p>Archway Oncology Care Analytics Suite™</p>	<p>Archway Health’s proprietary advanced software solution, Oncology Care Analytics Suite reviews OCM quarterly claims files and directs oncology practices to meaningful results. Archway’s online platform is designed to oncology care practices maximize Performance-Based Payments (PBPs) under the OCM program by answering your organization’s most essential performance questions: 1) How are we currently doing? What are our performance goals vs. target price? 2) What are the key drivers of our performance? 3) What can we do about it? What are the key drivers of savings and controllable costs?</p>
<p>Chartis Oncology Solutions Practice <a href="http://chartis.com">chartis.com</a></p>	<p>ONC iQ</p>	<p>ONC iQ is a SaaS product offering four use cases/modules including: (1) OCM analytics and reporting; (2) oncology service line comprehensive data management, analytics, reporting and visualizations; (3) oncology navigation metrics data management, analytics, reporting and visualizations; (4) oncology navigator core competencies education curriculum</p>
<p>DataGen <a href="http://datagen.info/">datagen.info/</a></p>		<p>DataGen’s web-based interactive oncology solution helps practices participating in the OCM program monitor their performance data. Practices can explore their financial results across performance periods and evaluate performance on key indicators of quality such as end of life care, drug utilization, hospital admissions, and emergency department visits. The model includes dashboards, filters, drill-down capability to episode and claim level detail, the ability to create and export custom reports, and a custom cancer staging component. In addition to the model,</p>

		DataGen goes through the process of validating CMS' application of the OCM methodology and provides practices possible errors to contest each reconciliation.
Flatiron Health <a href="http://flatiron.com">flatiron.com</a>	Flatiron OCM Solution	Flatiron's OCM solution delivers technology and expertise that supports practices' success in OCM. The solution provides quality measure tracking and reporting resources, patient-level clinical and biomarker data worklist and reporting files, automated episode identification, and MEOS billing opportunity identification and tracking. The solution's seamless and automated workflows reduce practices' burden with program requirements and its organized data capture enables the surfacing of meaningful insights to support providers success with payments. Beyond the software itself, our dedicated value-based care team helps practices navigate and achieve success with OCM and other new payment models.
Flatiron Health <a href="http://flatiron.com">flatiron.com</a>	DataConnect	Flatiron's DataConnect is a structured data snapshot of customers' EMR data. It provides easy data access for querying practice-specific data from OncoEMR, Flatiron's oncology-focused electronic health record. DataConnect is delivered as an encrypted database backup that can be used in conjunction with third-party software or a customer's own database visualization tool to analyze practice data. The tool enables practices to better analyze their data and investigate questions like drug utilization across clinicians for clinical and practice standards or quality metrics for payer negotiations.
HealthEC <a href="http://healthEC.com">healthEC.com</a>	Care Intelligence-Clinical Analytics	The Care Intelligence platform has a built in CMS certified data warehouse and a decision support system to track the



		<p>elements of the OCM program and all of the quadruple AIM data points. The decision support offered includes identifying the performance on cost, quality, and outcomes based on OCM &amp; Commercial Payer Cancer Type Mapping and Codes followed by the OCM model, at the practice, provider level with the capabilities to track the same based on special population cohorts and ICD 10. The system also enables documentation of all care coordination activities and correlates the quality and cost by program or care coordination activities. The ability to engage the community-based providers or social service agencies improves communication and tracking interventions.</p>
<p>iVantage www.ivantagehealth.com</p>	<p>iVantage Performance Manager</p>	<p>As part of iVantage's Performance Management benchmarking platform we offer Operational, Clinical, and Quality external comparisons and internal trend analyses for clients across a full spectrum of hospital functions and clinical service lines, including Oncology related services.</p>
<p>IntegraConnect <a href="http://integraconnect.com">integraconnect.com</a></p>	<p>Integra Intelligence</p>	<p>Integra Connect Population Health Analytics is a comprehensive suite of analytics products that provides insights to drives value-based care. Retrospective reports include chemotherapy, radiation and imaging practices patterns as well as drug cost comparisons utilizing payer claims data. Near real time quality and chemotherapy reporting, allows practices to easily meet the regulatory requirements of various value-based care programs and to monitor and improve value based on data that is as recent as yesterday. Predictive analytics informs practices about the risk profiles of all of the patients at their practice, allowing the most effective use of care management resources.</p>
<p>McKesson mckesson.com/Specialty/</p>	<p>Practice Insights<sup>SM</sup></p>	<p>Practice Insights helps oncology practices analyze data generated throughout the patient-care cycle to gain actionable</p>

		insights into quality initiatives, value-based care programs such as the Oncology Care Model (OCM) and the Merit-Based Incentive Payment System (MIPS), performance metrics, productivity measures, and peer/industry benchmarks. As a Centers for Medicare and Medicaid Services-approved Quality Clinical Data Registry (QCDR), Practice Insights can collect and report clinical data on behalf of clinicians for both MIPS and custom QCDR quality measures to drive improvements in quality and cost of care. The designation enables iKnowMed <sup>SM</sup> EHR users to efficiently submit data directly to CMS without engaging a separate registry vendor, streamlining data submission and minimizing the need for additional administrative resources.
Tuple Health <a href="http://www.tuplehealth.com">http://www.tuplehealth.com</a>	Tuple Health OCM Insights	Tuple Health supports practice transformation in oncology by delivering technologies and services that draw on a deep understanding of our customer's™ problems coupled with our integrated expertise in clinical care, payment policy, technology development, data science and human centered design. Our team partners closely with oncology practices to help them succeed in transitioning to value-based care models and build capacity by reorganizing data in a way that is clinically meaningful and actionable to providers and their care teams.

Domain 3: Practice Management

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
<u>Annexus Health</u> <a href="http://annexushealth.com">annexushealth.com</a>	Assist Point	AssistPoint is a fully connected, cloud-based technology platform, used by providers as a single destination to manage the financial assistance process for oncology patients.
Cardinal Health	Practice Analytics	Practices are able to gain complete visibility into every aspect of business by combining

<a href="http://cardinalhealth.com">cardinalhealth.com</a>		<p>clinical, financial and operational data. Practice Analytics offers intuitive, up-to-date dashboards that help practices monitor drug utilization, patient population, claims payment and denials, contract performance and reimbursement trends. With more efficient control of their financial reporting, practices can take immediate action when changes occur and improve their operational processes, cash flow, reimbursement performance and payer negotiations.</p>
<p>Cardinal Health <a href="http://cardinalhealth.com">cardinalhealth.com</a></p>	<p>GPO Contract Dashboard</p>	<p>GPO Contract Dashboard provides up-to-date, actionable insights about contract performance in a matter of seconds. GPO Contract Dashboard helps maximize revenue by showing physicians where their practice stands in achieving the next rebate tier. An integrated, real-time view of their contract portfolio helps practices make more informed contract decisions and easily monitor contract performance to get the highest benefit from every dollar spent on drug purchases.</p>
<p>Cardinal Health <a href="http://cardinalhealth.com">cardinalhealth.com</a></p>	<p>Revenue Analyzer</p>	<p>Revenue Analyzer helps practices provide a complete financial picture to patients and help them manage the financial impact of cancer treatment via advanced business intelligence. Regimen Analyzer delivers robust financial reporting and analysis, so physicians and patients understand the costs and financial assistance options available for each course of treatment. The Revenue Analyzer tool highlights opportunities to optimize drug spend, and ultimately decrease the financial burden for patients.</p>
<p>Flatiron Health <a href="http://flatiron.com">flatiron.com</a></p>	<p>OncoBilling</p>	<p>OncoBilling is an integrated oncology practice management software that auto-captures information from Flatiron Health's OncoEMR, making it easy to register patients, submit claims, post payments, and run reports all within a single platform. With this HITRUST Certified</p>

		cloud-based solution, practices can securely access OncoBilling 24/7 and quickly benefit from product enhancements and hands-on customer support.
Flatiron Health <a href="http://flatiron.com">flatiron.com</a>	Revenue Cycle Management	Flatiron team of oncology billing and process experts accelerate practices' financial performance and drive revenue expansion. The Flatiron Revenue Cycle Management team takes on administrative work for our clients, enabling them to focus on patient outcomes. As a part of our service, we work with client leaders to achieve their strategic goals by identifying and executing initiatives to support new revenue streams and reduce costs. To empower client teams and drive performance we provide: core billing processes, advanced practice analytics, change management support and workflow optimization, and revenue expansion services.
ION Solutions, an AmerisourceBergen Company <a href="http://iononline.com">iononline.com</a>	InfoDive	InfoDive is a strategic financial intelligence solution that allows oncology practices to better understand their current financial status, identify opportunities for improvement and provide feedback on key value-based initiatives such as the Oncology Care Model.
ION Solutions, an AmerisourceBergen Company <a href="http://iononline.com">iononline.com</a>	MIPS Reporting Services	ION's Quality Reporting Engagement Group assists oncology practices with value-based care needs and MIPS reporting and will help avoid costly missteps encountered when trying to meet these demands internally. Over 99% of practices that have engaged MIPS Reporting Services have achieved the "Exceptional Performer" status for 2018 attestation. Achieving higher quality scores can equate to higher financial incentives earned by the practice.
ION Solutions, an AmerisourceBergen Company <a href="http://iononline.com">iononline.com</a>	IntelliDoseTxM	Developed by oncologists, IntelliDoseTxM is a leading solution of chemotherapy management and oncology workflows built to increase patient safety and maximize staff

		<p>efficiency. This allows practices to capture the comprehensive information needed to provide quality cancer care when they have a general EMR.</p>
<p>ION Solutions, an AmerisourceBergen Company <a href="http://iononline.com">iononline.com</a></p>	<p>Nucleus Inventory Management System and Protocol Analyzer</p>	<p>The Nucleus Inventory Management System is a drug inventory and delivery system that allows community oncology practices to streamline their drug purchasing, administration and billing activities. Protocol Analyzer helps practices determine the total cost of delivering care through robust drug and protocol economic modeling. With Protocol Analyzer, customers can better manage drug spend, compare reimbursement for clinically equivalent therapies by payer, and create cost estimates for therapies to better facilitate financial counseling with patients.</p>
<p>RxVantage <a href="http://rxvantage.com">rxvantage.com</a></p>	<p>RxVantage</p>	<p>RxVantage is a free online platform improving patient care by connecting healthcare providers and life science reps. More than 6,000 practices use the platform to modernize their rep management with online calendars, a digital rep directory, in-app messaging, centralized reporting, and a patient assistance program database. The AI-powered platform saves oncology offices an average of 20+ hours each month while maximizing the education medical practices receive from life science companies.</p>
<p>Tailormed <a href="http://Tailormed.co">Tailormed.co</a></p>	<p>TailorMed Financial Navigation</p>	<p>TailorMed is a comprehensive software solution that automates financial navigation from end to end. Using data and advanced analytics, the platform's products streamline all steps of the process, from benefit investigation and out of pocket estimation to enrollment and management of approved programs. TailorMed's Solution increases patients' access to care and Providers revenues as a result of reduction of uncompensated care.</p>

Unlimited Systems <a href="http://unlimitedsystems.com">unlimitedsystems.com</a>	<a href="#">g4 Cloud™</a>	Unlimited's g4 Cloud platform for financial management equips specialty healthcare providers with a comprehensive set of secure and scalable revenue cycle features optimized for the cancer center. g4's end-to-end platform enables workflow efficiency and high-impact analytics spanning from Registration, Insurance Eligibility, and Treatment Authorization through Intake Workflow, Charge Review, Claim Origination, Contract Management and ultimately Accounts Receivable. Support for Value-Based Care payment models and Cost Accounting requirements are inherent to g4's native capabilities as is its compliance with interoperability standards.
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## Domain 4: Clinical Support

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
Cansera <a href="http://cansera.com">cansera.com</a>	Cansera	Cansera is functional performance status assessment tool in an oncology setting. It is designed to measure how difficult it is to perform ordinary daily activities for a patient with cancer. Important clinical decisions are based on PS including eligibility for clinical trial, developing functional outcomes in trial monitoring, or looking at measures of efficacy in post approval setting.
Cardinal Health <a href="http://cardinalhealth.com">cardinalhealth.com</a>	Jvion Machine	Offered through Cardinal Health and powered by Jvion, the Jvion Machine helps oncology practices improve care and lower rates of avoidable adverse events using AI-enabled prescriptive analytics for preventable harm that identifies specific patients on a risk trajectory, determines if that trajectory can be changed, and if so, recommends patient-specific interventions.
Elsevier <a href="http://elsevier.com/solutions/clinicalpath">elsevier.com/solutions/clinicalpath</a>	Clinical Path (formerly Via Oncology)	ClinicalPath delivers evidence-based medical and radiation oncology pathways, integrated into the EHR. Our pathways cover more than 97% of the most common

		<p>cancer presentations and are built in a transparent manner with input from practicing oncologists. We also present relevant clinical trials within our pathways, to support higher patient accrual and advance cancer research. In addition, we provide meaningful reporting and analytics to accurately track patterns of care. We also have embedded patient engagement resources in our solution, including patient-facing information on drug regimens and symptom management.</p>
<p>Flatiron Health <a href="http://flatiron.com">flatiron.com</a></p>	<p>Flatiron Assist</p>	<p>Flatiron Assist is a tool that helps oncologists quickly find evidence-based treatment options appropriate for each of their patients. Built off of NCCN guidelines, the tool enables oncologists to quickly find treatment options, including available trials, while tracking guideline concordance and providing standardized documentation and reporting capabilities. With Flatiron Assist, this can all be accomplished with minimal disruption to the physician’s existing workflows.</p>
<p>HealthEC <a href="http://healthEC.com">healthEC.com</a></p>	<p>Care Intelligence - CareConnect</p>	<p>The Care Intelligence platform has a built in CMS certified data warehouse and a decision support system to track the elements of the OCM program and all of the quadruple AIM data points. The decision support offered includes identifying the performance on cost, quality, and outcomes based on OCM &amp; Commercial Payer Cancer Type Mapping and Codes followed by the OCM model, at the practice, provider level with the capabilities to track the same based on special population cohorts and ICD 10. The system also enables documentation of all care coordination activities and correlates the quality and cost by program or care coordination activities. The ability to engage the community-based providers or social service agencies improves communication and tracking interventions.</p>

<p>IntegraConnect <a href="http://integraconnect.com">integraconnect.com</a></p>	<p>Care Coordinator</p>	<p>Care Coordinator provides an end-to-end, technology-enabled solution for successfully deploying and scaling care coordination and care management activities. Care Coordinator includes Patient Risk Stratification for each patient leveraging information from across the healthcare ecosystem, delivered in a prioritized patient list to inform assignment and plan interventions. The patient-centric view provides visibility into a patient's gaps in care or services. Patient Assessments include a core collection of widely recognized templates including the NCCN Distress Thermometer, Pain Scale, PHQ-9, and can be customized to client needs. The Care Manager is able to document patient specific plans based on the patient's identified issues. The dashboard allows for practice- specific reporting to track and measure the positive impact of care management activities.</p>
<p>Intervention Insights <a href="http://interventioninsights.com">interventioninsights.com</a></p>	<p>Trapelo</p>	<p>Trapelo is a leading enterprise precision medicine platform to connect and empower physicians, payers, labs and pharma in real time, at the point of care. Trapelo's collaborative, end-to-end, evidence-based technology platform supports all stakeholders in their shared quest to improve patient outcomes and manage costs in the new, ever-complex, rapidly changing age of precision medicine.</p>
<p>NeuroFlow <a href="http://Neuroflowsolutions.com">Neuroflowsolutions.com</a></p>	<p>IntegrateHealth</p>	<p>NeuroFlow is a HIPAA-compliant, collaborative care platform promoting behavioral health access and engagement in non-behavioral health settings to improve outcomes, overall wellness, and cost of care. Our patient facing mobile app facilitates remote monitoring and screening, patient education, and risk stratification while our provider facing web dashboard helps clinicians and health systems assess, track, and engage their patients between appointments.</p>



<p>OncoLens <a href="http://www.OncoLens.com">www.OncoLens.com</a></p>	<p>OncoLens</p>	<p>OncoLens is a cloud-based SaaS (software as a service) platform that facilitates cancer care treatment planning by streamlining multidisciplinary tumor board case collaboration among providers and providing clinical decision support, survivorship care planning, accreditation and quality improvement through an intelligent workflow engine that streamlines business processes and enables more informed clinical decision-making. This multi-disciplinary approach has shown increased positive outcomes for cancer patients and cost savings in the care treatment planning process. OncoLens automatically collects needed information in a platform which promotes collaboration, multidisciplinary treatment planning, and clinical trial participation.</p>
<p>Sargas Pharmaceutical Adherence &amp; Compliance - SPAC International <a href="http://spacinternational.com">spacinternational.com</a> <a href="http://sargasinternational.com">sargasinternational.com</a></p>	<p>SPAC Chronic Care Management Portals®, Mobile Chronic Care Management®, Chronic Care Management Cloud®</p>	<p>Sargas Chronic Care Management services are provided turnkey along with compassionate case managers that provide care coordination for practices' Medicare patients. The SPAC cloud has all the data and backup if and when there is a Medicare audit. SPAC staff stands by the practice to provide all the documentation including patient consent, call logs, care changes, medication reconciliation and more.</p>

Domain 5: Patient Engagement, Monitoring & Navigation

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
<p>Carevive <a href="http://carevive.com">carevive.com</a></p>	<p>Carevive Perform</p>	<p>Carevive's integrated patient engagement platform provides cancer patients with personalized cancer care plans that improve clinical outcomes and enables patients to remotely report symptoms and receive updated care plans in real-time with evidence-based instruction from their connected care team.</p>

<p>Digidence <a href="http://digidence.co">digidence.co</a></p>	<p>CarePrompter and ePRO</p>	<p>CarePrompter enables oncology providers to effectively and efficiently monitor symptoms patients may be experiencing between clinic visits. Patients virtually "check in" via a Smartphone App or tablet. Data is then sent to providers via an integrated Dashboard or via secure messages after being processed using customized triage pathways. Doing so enables oncology nurses and others to easily and quickly prioritize patients by acuity, resulting in improved workflow and lower preventable ED visits and hospitalizations.</p> <p>ePRO enables oncology providers to effectively and efficiently comply with government and payor mandates while enabling them to improve patient outcomes. Patients may fill out any validated or custom instrument using their own devices or tablets in the practice while they wait. Data is sent and stored in our secure cloud and can be easily analyzed or sent to regulators or payors.</p>
<p>Elly Health, Inc. <a href="http://Ellyhealth.com">Ellyhealth.com</a></p>	<p>Elly</p>	<p>Elly is the world's first empathetic audio companion for cancer patients. Our mission is to be the first FDA-approved digital therapeutic for quality of life outcomes in oncology.</p>
<p>Family Care Path, Inc. <a href="http://familycarepath.com">familycarepath.com</a></p>	<p>CancerNAV</p>	<p>CancerNAV is a patient relationship management (PRM) solution that supports efficient and timely patient engagement, communication and adherence to the treatment plan. Disease-specific checklists in CancerNAV efficiently guide Navigator workflow, fostering patient-provider and inter-team communication to ensure timely access to care. Navigator dashboards, reminders and alerts guide navigator workflow and facilitate coordination of care. Quality</p>

		improvement initiatives and documentation to accreditation standards are further enhanced with actionable point of care metrics allowing oncology programs to demonstrate value, success and sustainability.
Flatiron Health <a href="http://flatiron.com">flatiron.com</a>	CareSpace	CareSpace is a patient relationship management platform that provides patients secure, online access to their health information and care team. Used by providers and care teams at over 230 practices, CareSpace is designed to support practice productivity and coordination, improve patients' access to actionable information, and support the practice/patient relationship. Built on a new technology platform that enables heightened security and rapid iteration, CareSpace updates according to shifting industry requirements and customer needs.
Guideway Care <a href="http://guidewaycare.com">guidewaycare.com</a>	Guideway Care	Guideway Care offers a technology-enabled turnkey solution that deploys non-clinical care guides to act as extenders to the clinical team. We focus on identifying and resolving issues, barriers, and obstacles that impede patient compliance. By focusing on finding issues embedded in the social determinants of health and equipping our Care Guides with structured workflows and non-clinical interventions, resulting in reduced unnecessary utilization and increased patient satisfaction.
Navigating Cancer <a href="http://navigatingcancer.com">navigatingcancer.com</a>	Navigating Care	Navigating Care is as comprehensive digital patient relationship management software solution. The platform is a workflow tool for care management, patient engagement and population care for oncology providers with a bi-directional connection to patients, caregivers and authorized representatives. The platform is used by

		thousands of providers and hundreds of thousands of patients and has been proven to improve outcomes, reduce costs, and improve patient satisfaction.
Patient Resource LLC <a href="http://navigator.patientresource.com">navigator.patientresource.com</a>	Patient Resource Navigator	The Patient Resource Navigator platform provides patient experience changing tools, allowing oncology professionals to order custom, personal patient education guides and apps throughout the patient journey. Unique down to the diagnosis, stage & biomarker, the metrics gathered from patients receiving these guides prove they build trust, making people feel individually cared for. The app allows ePROs for toxicity reporting and medication adherence.
Sargas Pharmaceutical Adherence & Compliance - SPAC International <a href="http://spacinternational.com">spacinternational.com</a> <a href="http://sargasinternational.com">sargasinternational.com</a>	Medication Adherence products and Remote Patient Monitoring	Medication Adherence and Remote Patient Monitoring via the SPAC Physician, Patient and Pharmacy Portals.
Willowglade Technologies <a href="http://willowgladetechnologies.com">willowgladetechnologies.com</a>	Health Orchestrator / Personal Health Navigator	Willowglade focus is on practice/patient communication and collaboration for important areas such as symptom management and triage, program adherence (including oral oncolytic adherence) and patient education. We leverage advanced communication approaches such as automated texting and/or emailing and advanced oral oncolytic monitoring, notification and management tools, we also provide client practices detailed statistics of the use of the platform which can be used to implement internal process improvement, improved efficiency and for improving patient outcomes.

## Domain 6: Clinical Trials/Research

COMPANY NAME & URL	PRODUCT NAME	FUNCTION
Flatiron Health <a href="http://flatiron.com">flatiron.com</a>	OncoTrials	<p>Flatiron’s OncoTrials works to streamline trial recruitment and operations through technology, helping make sure you won’t miss a single eligible patient. This product has been built from the ground up in close partnership with research managers &amp; coordinators, ensuring that features built are actually what is most valuable to research programs. Using OncoTrials, more efficiently &amp; effectively review and recruit patients, ensure visibility into research workflows within and across care teams, and easily access data to inform decision-making for a specific trial or across your entire research program.</p>
HealthEC <a href="http://healthEC.com">healthEC.com</a>	Care Intelligence - Clinical Research as a Care Option (CRAACO)	<p>CRAACO harmonizes disparate data to enhance patient identification, screening, and tailoring an approach based on clinical research therapeutic area. This enhances client’s ability to identify clinical trial opportunities within their organization along with the ability to match the criteria based on lab, EHR and clinical protocol data to produce artifacts such as geo-maps, number of patients enrolled and/or not-enrolled.</p> <p>The Care Intelligence platform incorporates a CMS- certified data warehouse and a decision support system to track the elements of the OCM program. The decision support offered includes identifying the</p>

		<p>performance on cost, quality, and outcomes based on OCM and Commercial Payer Cancer Type Mapping and Codes followed by the OCM model, at the practice, provider level with the capabilities to track the same based on special population cohorts and ICD 10. The system also enables documentation of all care coordination activities and correlates the quality and cost by program or care coordination activities. The ability to engage the community-based providers or social service agencies improves communication and tracking interventions. The incorporated data warehouse helps the organization observe trends and behaviors with each cancer type to help make decision during treatment and for follow up. This data warehouse is a rich source for clinical trials (Real World Experience) and patient enrollment where correlation between clinical, demographical and co-morbidities is possible with mortality or survival rates.</p>
<p>SAM S. MILLER MD <a href="mailto:sam@samcrc.com">sam@samcrc.com</a></p>	<p>BREEZE e Clinical Trials System</p>	<p>Web browser accessed clinical trials eSource clinical trials management system that handles all the functions of the investigator site in a clinical trial. Includes trial configuration, original electronic data, regulatory documents, investigational product managements, in workflow that follows the way health workers work. Provides a global app for an unlimited number of sites to collect and transmit to the sponsor and then to regulators</p>

		all the data required by the protocol and per GCP in a consistent and compliant manner. Can reduce workflow and costs of phase 3 and phase 4 clinical trial by half.
SignalPath <a href="http://www.signalpath.com">www.signalpath.com</a>	SignalPath	SignalPath is the premier clinical trial technology partner for research sites and sponsors, focused on improving the ease and efficiency of trial execution and management. Supporting over 2,500 trials across 250 sites and 3,000 active users, SignalPath is the industry standard that addresses key pain points in the conduct of trials.