

# Market Analysis for MERP AI

A Proactive Solution for Reducing Errors in  
Radiation Treatment Workflow



# Table of Contents

**01**

**Company  
Intro**

**02**

**Market  
Overview**

**03**

**Competitor  
Analysis**

**04**

**Potential  
Partners**

**05**

**Final  
Recommendations**

01

# Company Intro



# RadPhysics

- Established in 2008
- Located in Albuquerque, NM
- First company to offer a **software-based error reduction program (MERP)** designed to reduce medical errors in radiation oncology.
- Medical errors affect **400,000** patients a year at an estimated annual cost of **\$20 billion**.



# Scope and Goals



## Market Analysis

Evaluate market potential by analyzing the current market, projected market growth, and key drivers.



## Competitor Analysis

Conduct competitor analysis by examining other companies with patient safety reporting systems.



## Potential Partnerships

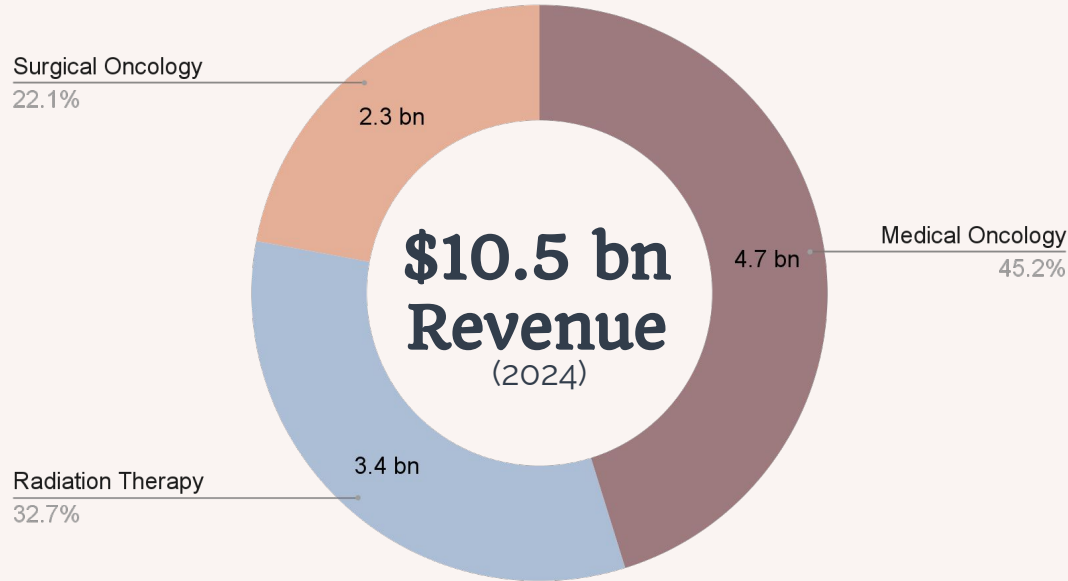
Identify potential partnerships with credible clinics or hospital networks.

# 02

# Market Overview



# US Oncology Market

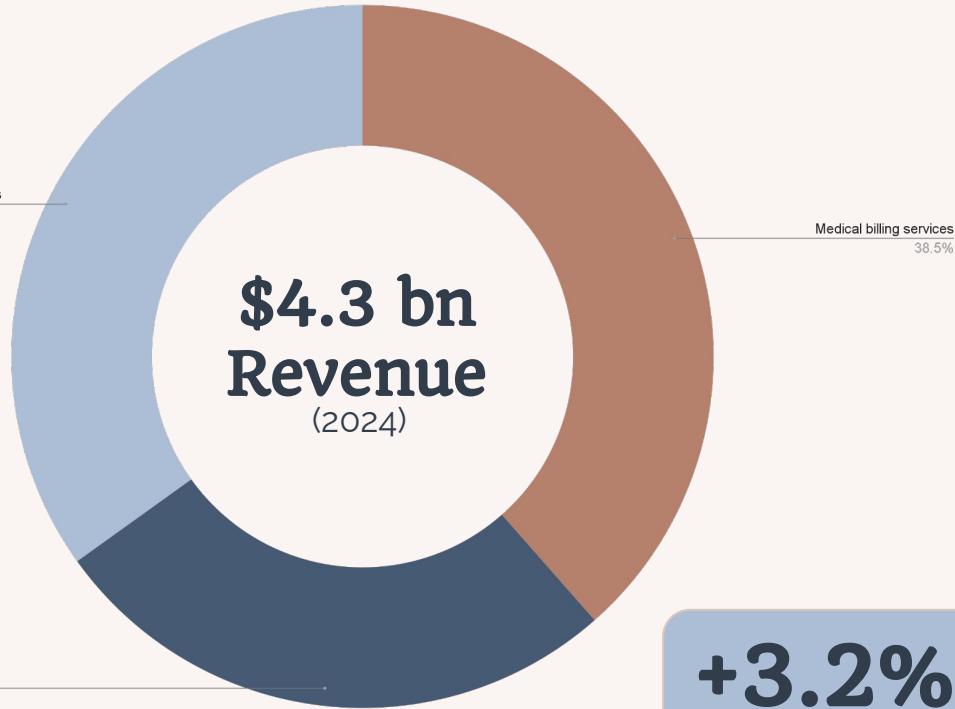


## Key Drivers :

- Private Insurance
- Medicare & Medicaid
- Patient Financial Burden
- Pharma Companies

**+1.9%**  
CAGR 2024-29

# US Medical Billing Services

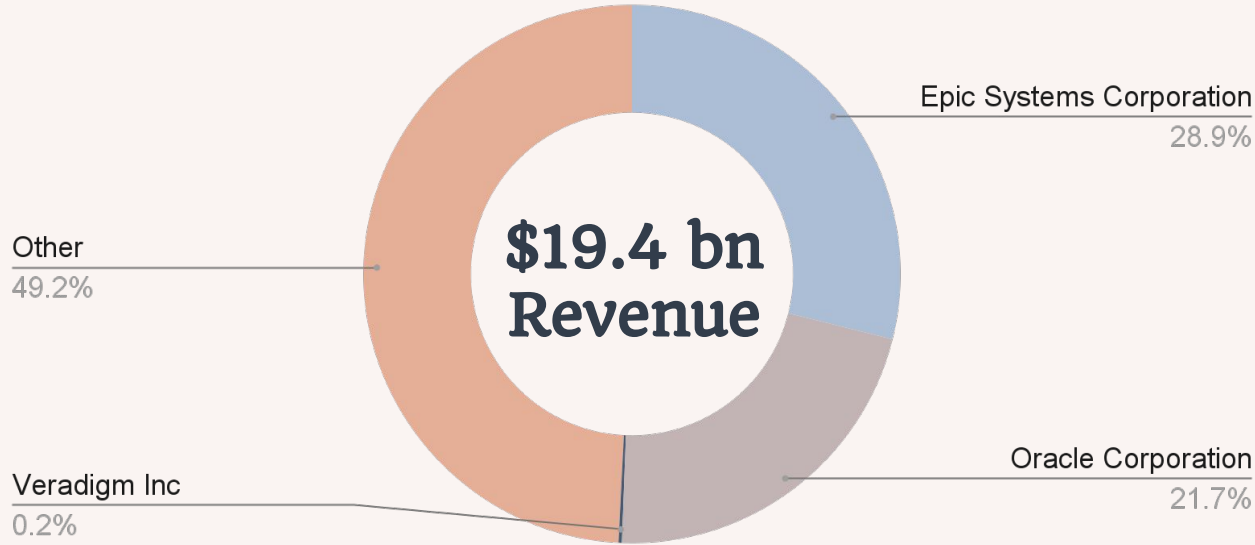


**+3.2%**  
CAGR 2024-29

## Key Drivers:

- Health Expenditure
- Private Health Insurance Rates
- Number of Physician Visits
- Online Business conducted

# US Electronic Medical Records



**+4%**  
CAGR 2025-30

## Key Drivers:

- Federal Funding
- Health Expenditure
- Number of Physician Visits
- Research and Development Expenditure

# Industry Structure

## Negative

- Regulation
- Competition
- Barriers to Entry

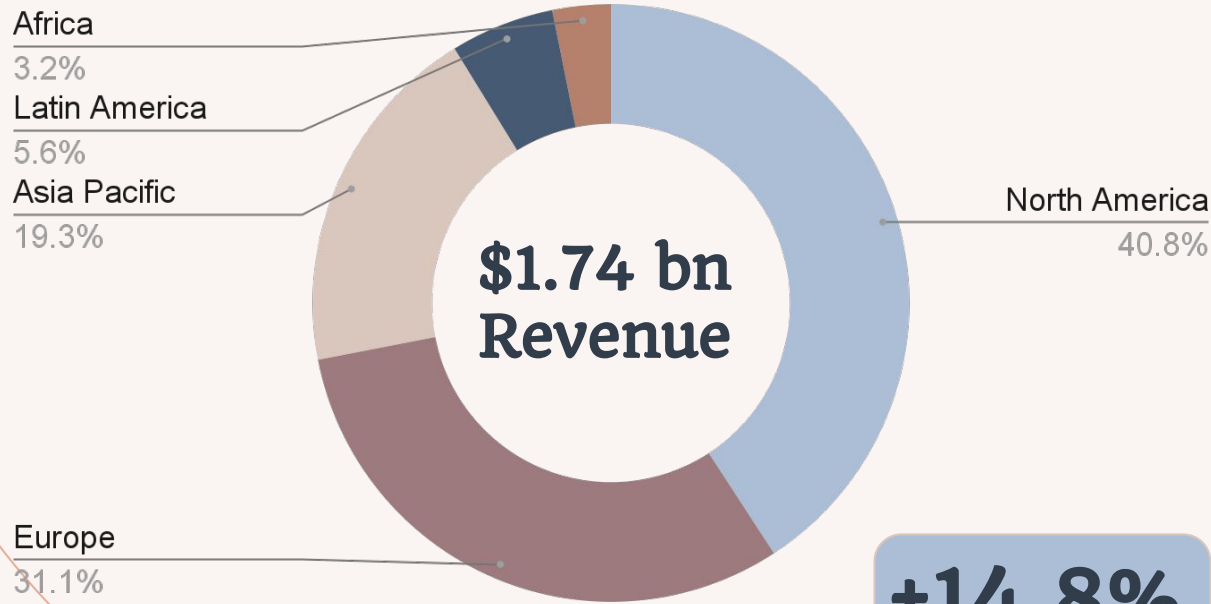
## Neutral

- Concentration
- Revenue  
Volatility
- Assistance

## Positive

- Life Cycle
- Innovation

# AI-Enhanced Medication Error Prevention



**\$1.74 bn  
Revenue**

**+14.8%**

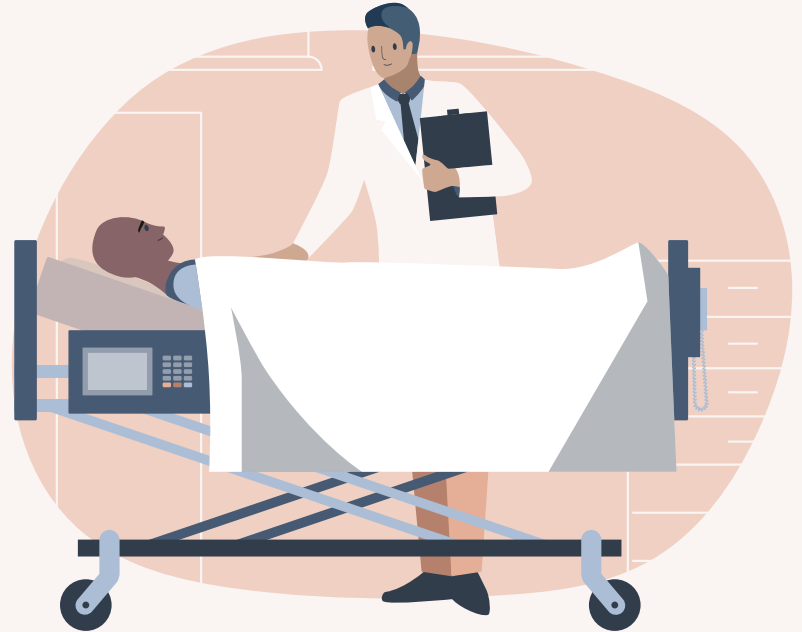
CAGR 2025-33

## Key Drivers:

- Medical Error Rates
- Digitization of Healthcare Infrastructure
- Cloud-based Solutions

03

# Competitor Analysis



# Methodology

## Competitors Analyzed:

- American Society for Radiation Oncology (ASTRO) Radiation Oncology Incident Learning System® (RO-ILS)
- International Atomic Energy Agency (IAEA) Safety in Radiation Oncology (SAFRON)
- RaioData (RaioQA)
- RLDatix
- Radformation
- Fuse Oncology
- Manteia Medical
- RadAI
- The Center for Assessment of Radiological Sciences (CARS) Radiotherapy Incident Reporting and Analysis system (RIRAS)

## Primary Attributes Compared:

- Radiology Oncology specificity
- Statistical analysis and trend reporting
- RCA Tools
- Embedded learning
- AI Integration

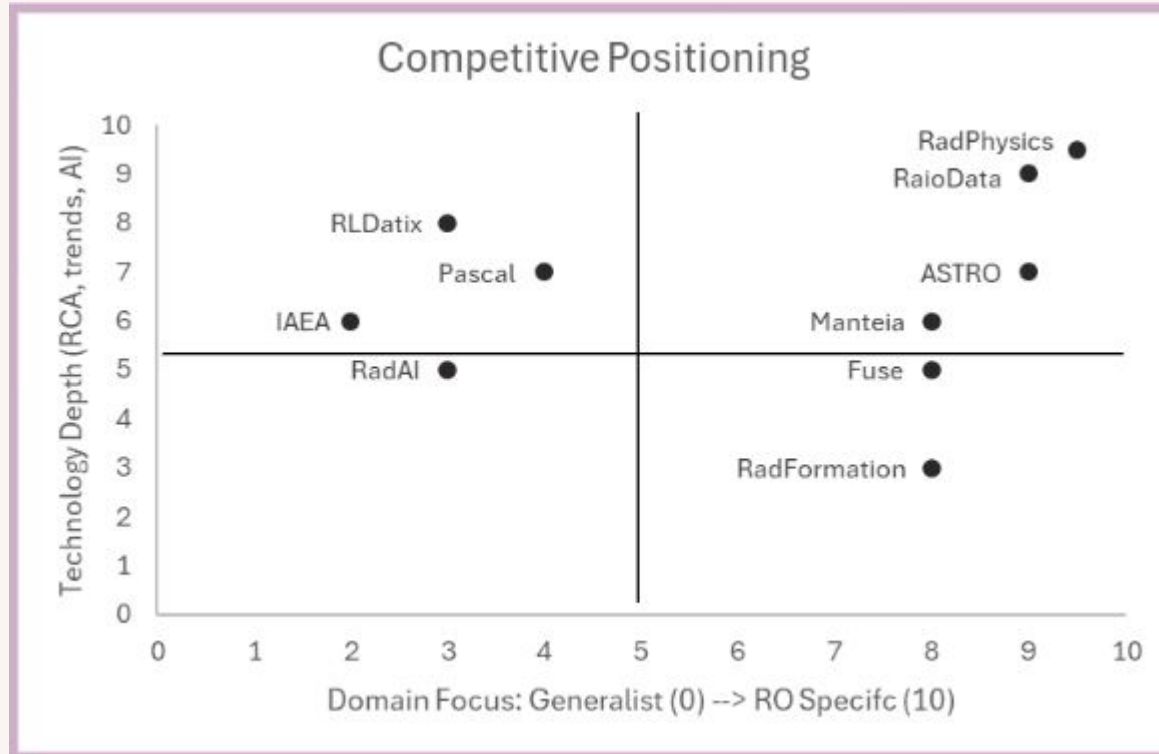
## Secondary Attributes Compared:

- Facility integration and scale
- PSO/Legal Protections
- Upstream error reduction and automation

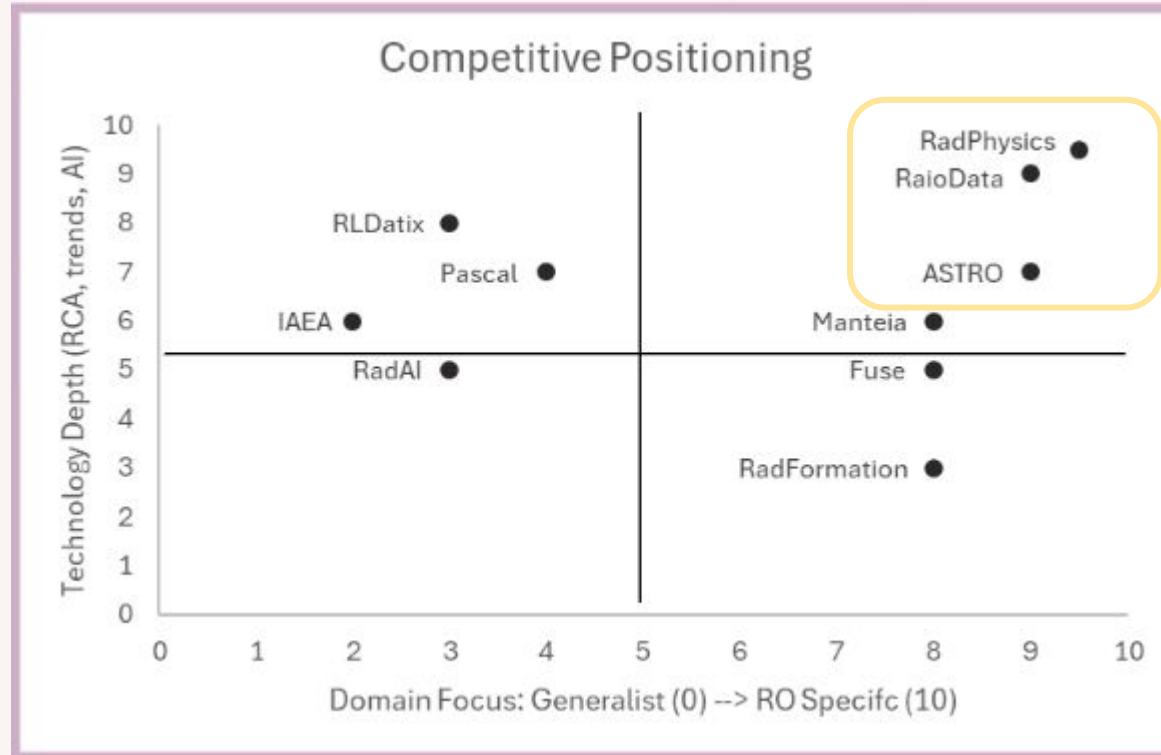
# Feature Comparison

Feature/Platform	RadPhysics MERP	ASTRO RO-ILS	IAEA SAFRON	RaioQA	RLDatix (RLD360)	Radformation	Pascal Metrics (PASCAL)
<b>Radiation Oncology Specific</b>	Yes - Tailored to RO Workflows	Yes	Yes	Yes	No - General Healthcare	Yes	Yes
<b>Investigation/RCA Tooling</b>	Yes - Process Driven	Basic - Structured analysis	No - reporting and learning system	Yes - RCA workflows	Yes- full RCA module	No - prevention tool	No - metrics/KPI focus
<b>Statistical trend reporting dashboards</b>	Yes - benchmarking and trends	Yes - national dashboards	Yes- aggregated analysis	Yes - dashboards and trend detection	Yes- enterprise analytics	Limited (QA metrics)	Yes - dashboards and KPIs
<b>Embedded learning/training</b>	Yes - case studies/outputs	Yes- education and case reports	Yes - learning systems and resources	Yes- learning culture features	Yes- training modules available	No- automation focus	Limited - analytics only
<b>AI Predictive Analysis</b>	Yes - Work in Progress	No	No	Yes	Yes - AI insights	No	Yes

# Competitive Positioning



# Competitive Positioning



# Top Competitors

Platform	Strengths	Weaknesses
RadPhysics MERP	<ul style="list-style-type: none"> <li>• Deep <b>RCA workflows</b> and structured investigations</li> <li>• Robust local analytics and trend reporting</li> <li>• Embedded learning and training support</li> <li>• <b>AI integration</b> roadmap underway</li> <li>• Built for enterprise/multi-site scalability</li> </ul>	<ul style="list-style-type: none"> <li>• No PSO protection today</li> <li>• No national benchmarking/registry data</li> <li>• Lower brand recognition vs. ASTRO-backed RO-ILS</li> </ul>
ASTRO RO-ILS	<ul style="list-style-type: none"> <li>• Official ASTRO/AAPM endorsement (high credibility)</li> <li>• <b>Strong PSO legal protection</b></li> <li>• National benchmarking from large data pool</li> <li>• Established in many U.S. RO clinics</li> </ul>	<ul style="list-style-type: none"> <li>• Limited RCA investigation depth</li> <li>• Basic local analytics (registry focus)</li> <li>• No AI integration</li> <li>• Weak enterprise scalability</li> </ul>
RaioData (RaioQA)	<ul style="list-style-type: none"> <li>• RO-specific focus</li> <li>• RCA workflows and incident tracking</li> <li>• Local dashboards and trend reporting</li> <li>• Modern user experience</li> </ul>	<ul style="list-style-type: none"> <li>• Less mature than MERP</li> <li>• Limited AI features</li> <li>• Basic embedded learning</li> <li>• Small adoption base; limited peer benchmarking</li> </ul>

# Where does MERP Stand?



## Where MERP stands out:

Investigation depth, analytics, embedded learning, AI roadmap, and enterprise fit.



## Where MERP lags:

Lack of PSO protection, national benchmarking, and brand recognition compared to ASTRO-backed RO-ILS.



## Competitive sweet spot:

MERP offers the most clinic-usable, technology-rich platform of the three, but will need to tackle legal protections and reputation-building to fully displace ASTRO's RO-ILS..

04

# Potential Partnerships



# Academic Centers

	<b>Reporting system</b>	<b>Clinical Research</b>	<b>Goals</b>
UNC Lineberger Comprehensive Cancer Center (Chapel Hill, NC)	<ul style="list-style-type: none"> <li>• SAFE reporting system</li> <li>• DSMC</li> </ul>	<ul style="list-style-type: none"> <li>• Portfolio of over 500 clinical trials</li> <li>• Treatment of over 700 patients a year</li> </ul>	<ul style="list-style-type: none"> <li>• Aim to improve patient outcomes</li> <li>• Promote a learning health system</li> </ul>
Sidney Kimmel Comprehensive Cancer Center at Thomas Jefferson University (Philadelphia, PA)	<ul style="list-style-type: none"> <li>• PSN</li> <li>• ILS and CRM</li> </ul>	<ul style="list-style-type: none"> <li>• 100 clinical trials at any given time</li> <li>• Partnership with Drexel University</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance patient experience</li> <li>• Understand needs of the community</li> </ul>

# Community & Regional Centers

	<b>Capabilities</b>	<b>Advantages</b>	<b>Engagement Strategy</b>
Texas Oncology (Statewide – US Oncology Network)	<ul style="list-style-type: none"> <li>• Standardized RO stacks (Varian Eclipse/ARIA)</li> </ul>	<ul style="list-style-type: none"> <li>• Large community network</li> <li>• High volumes</li> <li>• Mature QA committees</li> </ul>	<ul style="list-style-type: none"> <li>• Multi-site pilot</li> <li>• Scalability &amp; incident-learning</li> <li>• Diverse clinics</li> </ul>
Kaiser Permanente (Northern California Radiation Oncology)	<ul style="list-style-type: none"> <li>• Highly integrated care</li> <li>• Epic enterprise EHR</li> </ul>	<ul style="list-style-type: none"> <li>• Patient safety culture</li> <li>• Tight operational playbooks</li> </ul>	<ul style="list-style-type: none"> <li>• Prove end-to-end workflow embedding</li> <li>• Incident learning</li> </ul>
Novant Health Care Institute (NC/SC)	<ul style="list-style-type: none"> <li>• Growing RO footprint</li> <li>• Epic EHR</li> </ul>	<ul style="list-style-type: none"> <li>• Enterprise quality oversight</li> </ul>	<ul style="list-style-type: none"> <li>• Strong candidate for regional pilot</li> </ul>

05

# Final Recommendations

# Final Recommendations

01



## Business Targeting

High cost of turnover for healthcare providers means difficulty replacing existing systems.

02



## Competitive Positioning

Address gap in legal protection by exploring a partnership with an existing PSO.

03



## Partnerships

To diversify results, partner with regional/community center hospital networks.

# Acknowledgements



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# Questions?



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