

PREVIEW



Clinical Imaging: Market and Outsourcing Dynamics



Report Overview

Clinical imaging has become an integral part of the extensive and expensive research and development process of the pharmaceutical and biotechnology industries. Clinical imaging modalities such as magnetic resonance images (MRI), computed topography scans (CT), and x-rays are fundamental in testing the safety and efficacy of drugs in development phases I through IV.

This report offers two unique perspectives to the clinical imaging service provider market based on the surveys ISR has administered – one from the perspective of companies who currently outsource their imaging services and another from the actual imaging service providers.

Methodologies

ISR gathered content for this report via an exhaustive primary and secondary research effort.

Primary Research:

- 30-45 minute web based quantitative and qualitative survey with 60 respondents from companies who outsource imaging clinical trials
- Company profile questionnaires distributed to CROs profiled in this report

Secondary Research:

- An analysis of clinicaltrials.gov data to provide a high-level overview of current clinical imaging trial activity
- Company and Association information gathered from company websites and publications

26

Companies Included

7,906

Clinical Imaging Trials Analyzed

134

Pages

Report Structure:

1. Executive summary
2. Demographics & responsibilities of companies outsourcing imaging services
3. Perspectives on outsourcing from companies that outsource imaging services
4. Experiences & practices of companies outsourcing imaging services
5. Current use of imaging within clinical trials
6. Service provider capabilities

How you can use this report:

Sponsor Companies:

- Compare potential service providers
- Identify which imaging companies are most recognizable in the imaging service sector
- Learn how competitors use imaging service providers

Imaging Companies:

- Understand the needs and demands that currently exist within the market
- Benchmark current offerings compared to industry averages
- Learn how to differentiate from competitors

Companies Included:

Full-service CROs

- Bioclinica
- Biomedical Systems
- Certus International
- Charles River
- Covance
- ICON
- Medpace
- PAREXEL Informatics
- QPS Holdings, LLC
- Caliper Discovery Alliances and Services

Dedicated imaging CROs

- Canfield Scientific, Inc
- Cardiovascular Imaging Technologies
- Clinical Image Management Systems
- Flagship BioSciences
- ACR Image Metrix
- Illuminostics
- Imaging Endpoints
- Inference Systems
- Intrinsic Imaging
- Molecular NeuroImaging
- Numira Biosciences
- Prism Clinical
- Radcore Labs
- Radiant Sage
- VirtualScopic
- WorldCare

Imaging Modalities Included:

MRI
PET
Angiograph
ECHO
Tomograph
Ultrasound
SPECT
X-ray

Table of Contents

Copyright and usage guidelines

Introduction

Report benefits

Report sections

Methodology and sources

Executive Summary

Imaging provider characteristics

Differentiating imaging-dedicated and full-service CROs

Trends amongst companies that outsource imaging services

Overview of imaging service provider capabilities

Overview of company profile results

ClinicalTrials.gov summary data

Demographics & responsibilities of respondents outsourcing imaging services

Respondent demographics

Type of organization

Job titles of respondents

Corporate headquarters location

Office location

Functional areas of responsibility

Primary functional responsibility

Respondent roles in selecting outsourcing vendors

Perspectives on outsourcing imaging services

Use of imaging modalities

Imaging modalities used in past 12 months

Growth/decline in use of imaging modalities

How imaging is utilized

Imaging needs met by clinical vs. molecular imaging

Anticipated imaging needs met by clinical vs. molecular imaging

Centralized vs. decentralized approach to image reading

Preference for centralized vs. decentralized approach to image reading

Perceived value of imaging service providers

Projected growth/decline in imaging studies – 18 month projection

Experiences & practices of companies outsourcing imaging services

Familiarity with imaging service providers

Level of involvement with imaging trials

Familiarity with imaging service providers

Familiarity with specific imaging service providers

Preferred attributes of imaging service providers

Top 5 attributes of imaging service providers – selected by those outsourcing the service

Top 3 attributes of imaging service providers – selected by those outsourcing the service

Top attribute of imaging service providers – selected by those outsourcing the service

Imaging outsourcing market

Likelihood to outsource specific imaging services

Percent of imaging services that are outsourced

Percent of imaging services to be outsourced – 18 month projection

Current use of imaging within clinical trials

All technologies

Number of clinical imaging trials by phase

Number of clinical imaging trials by phase – industry only

Average number of patients in clinical imaging trials by phase

Average number of patients in clinical imaging trials by phase - industry only

Clinical imaging trails by sponsor company

Clinical imaging trials by sponsor type

Number of interventional imaging trials by phase

Number of interventional imaging trials by phase – industry only

Average number of patients in interventional imaging trials by phase

Average number of patients in interventional imaging trials by phase – industry only

MRI

Number of clinical imaging trials by phase

Table of Contents

Number of clinical imaging trials by phase – industry only	Angiograph clinical imaging trails by sponsor company
Average number of patients in clinical imaging trials by phase	Clinical imaging trials by sponsor type
Average number of patients in clinical imaging trials by phase – industry only	Number of interventional imaging trials by phase
MRI clinical imaging trails by sponsor company	Number of interventional imaging trials by phase– industry only
Clinical imaging trials by sponsor type	Average number of patients in interventional imaging trials by phase
Number of interventional imaging trials by phase	Average number of patients in interventional imaging trials by phase – industry only
Number of interventional imaging trials by phase – industry only	ECHO
Average number of patients in interventional imaging trials by phase	Number of clinical imaging trials by phase
Average number of patients in interventional imaging trials by phase – industry only	Number of clinical imaging trials by phase – industry only
PET	Average number of patients in clinical imaging trials by phase
Number of clinical imaging trials by phase	Average number of patients in clinical imaging trials by phase – industry only
Number of clinical imaging trials by phase – industry only	ECHO clinical imaging trials by sponsor company
Average number of patients in clinical imaging trials by phase	Clinical imaging trials by sponsor type
Average number of patients in clinical imaging trials by phase – industry only	Number of interventional imaging trials by phase
PET clinical imaging trials by sponsor company	Number of interventional imaging trials by phase – industry only
Clinical imaging trials by sponsor type	Average number of patients in interventional imaging trials by phase
Number of interventional imaging trials by phase	Average number of patients in interventional imaging trials by phase – industry only
Number of interventional imaging trials by phase – industry only	Tomograph
Average number of patients in interventional imaging trials by phase	Number of clinical imaging trials by phase
Average number of patients in interventional imaging trials by phase – industry only	Number of clinical imaging trials by phase – industry only
Angiograph	Average number of patients in clinical imaging trials
Number of clinical imaging trials by phase	Average number of patients in clinical imaging trials by phase – industry only
Number of clinical imaging trials by phase – industry only	Tomograph clinical imaging trails by sponsor company
Average number of patients in clinical imaging trials by phase	Clinical imaging trails by sponsor type
Average number of patients in clinical imaging trials by phase - industry only	Number of interventional imaging trials by phase

Table of Contents

<ul style="list-style-type: none"> Number of interventional imaging trials by phase – industry only Average number of patients in interventional imaging trials by phase Average number of patients in interventional imaging trials by phase – industry only 	<ul style="list-style-type: none"> SPECT <ul style="list-style-type: none"> Number of clinical imaging trials by phase Number of clinical imaging trials by phase – industry only Average number of patients in clinical imaging trials by phase Average number of patients in clinical imaging trials by phase – industry only Clinical imaging trials by sponsor type SPECT clinical imaging trails by sponsor company Number of interventional imaging trials by phase Number of interventional imaging trials by phase – industry only Average number of patients in interventional imaging trials by phase Average number of patients in interventional imaging trials by phase – industry only
<p>Ultrasound</p> <ul style="list-style-type: none"> Number of clinical imaging trials by phase Number of clinical imaging trials by phase – industry only Average number of patients in clinical imaging trials by phase Average number of patients in clinical imaging trials by phase– industry only Ultrasound clinical imaging trails by sponsor company Clinical imaging trials by sponsor type Number of interventional imaging trials by phase Number of interventional imaging trials by phase – industry only Average number of patients in interventional imaging trials by phase Average number of patients in interventional imaging trials by phase – industry only 	<p>Service provider capabilities</p> <ul style="list-style-type: none"> Capabilities charts
<p>X-ray</p> <ul style="list-style-type: none"> Number of clinical imaging trials by phase Number of clinical imaging trials by phase – industry only Average number of patient in clinical imaging trials by phase Average number of patient in clinical imaging trials by phase – industry only X-ray clinical imaging trails by sponsor company Clinical imaging trials by sponsor type Number of interventional imaging trials by phase Number of interventional imaging trials by phase – industry only Average number of patients in interventional imaging trials by phase Average number of patients in interventional imaging trials by phase – industry only 	<p>Company Profiles</p> <ul style="list-style-type: none"> Company profiles - Dedicated Imaging CROs <ul style="list-style-type: none"> Intrinsic Imaging Radiant Sage Contact list – Dedicated Imaging CROs Company profiles - Full-Service CROs <ul style="list-style-type: none"> Bioclinica Biomedical Systems Medpace Contact list – Full-Service CROs <p>About Industry Standard Research</p>

Sample Page

Introduction

act with confidence



Introduction

Clinical imaging has become an integral part of the extensive and expensive research and development process of the pharmaceutical and biotechnology industries. Clinical imaging modalities such as magnetic resonance images (MRI), computed topography scans (CT), and x-rays are fundamental in testing the safety and efficacy of drugs in development phases I through IV. As is the case with controlled, interventional study designs, the volume of scans that must be done for statistically significant results that successfully eliminate the incidence of type I and type II errors is substantial.

Further, because these scans offer little (if any) quantitative information, reading the data offered by imaging software often requires professionals with backgrounds in radiology. Coupled with equipment and labor costs, the cost of clinical imaging becomes a major factor in the drug development process that requires informed decision-making by both pharmaceutical companies and CROs that outsource or perform their imaging processes.

ISR has identified two types of clinical imaging service providers that are outlined and compared to one another throughout this report. The imaging needs of a company may depend on whether a company requires an imaging service in addition to other clinical research services or would prefer working with a company that focuses exclusively on imaging modalities. ISR will use "multi-service CROs" and "dedicated imaging CROs" to differentiate the two.

- Multi-service CROs: Larger CROs such as ICON have developed imaging departments with extensive databases of clinical imaging outputs to augment their full-service capabilities.
- Dedicated imaging CROs: Service providers such as ACR Image Metrix focus exclusively on imaging services and operate as a vendor to not only pharmaceutical companies, but other CROs in need of imaging services.

Recent industry activity

- July 2013: VirtualScopics, a full-service CRO completed a Phase III breast cancer study which included ten thousand image scans and two million data records in five weeks' time with no data errors.
- March 2013: Private equity firm, JLL Partners acquired BioClinica and CoreLab in an effort to establish an industry model for imaging core lab services. The point being, clinical imaging services are growing within the industry and third party companies are taking notice.
- March 2012: WorldCare Clinical began offering a 24-hour safety assessment service for clinical images via their WorldPro automated image management platform.

Sample Page

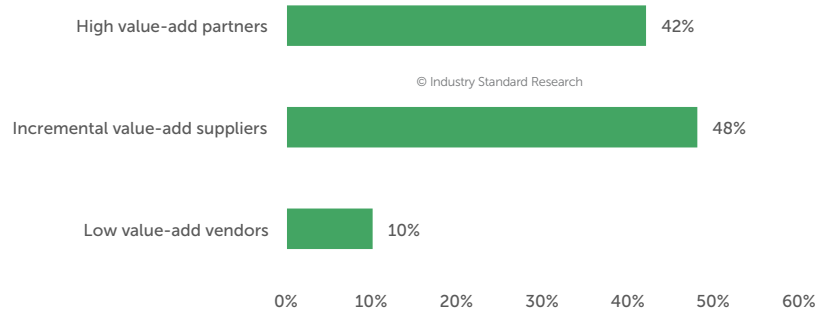
Perspectives on outsourcing imaging services

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Perceived value of imaging service providers

"I view imaging service providers I work with as..." (Base=60)



Sample Page

Perspectives on outsourcing imaging services

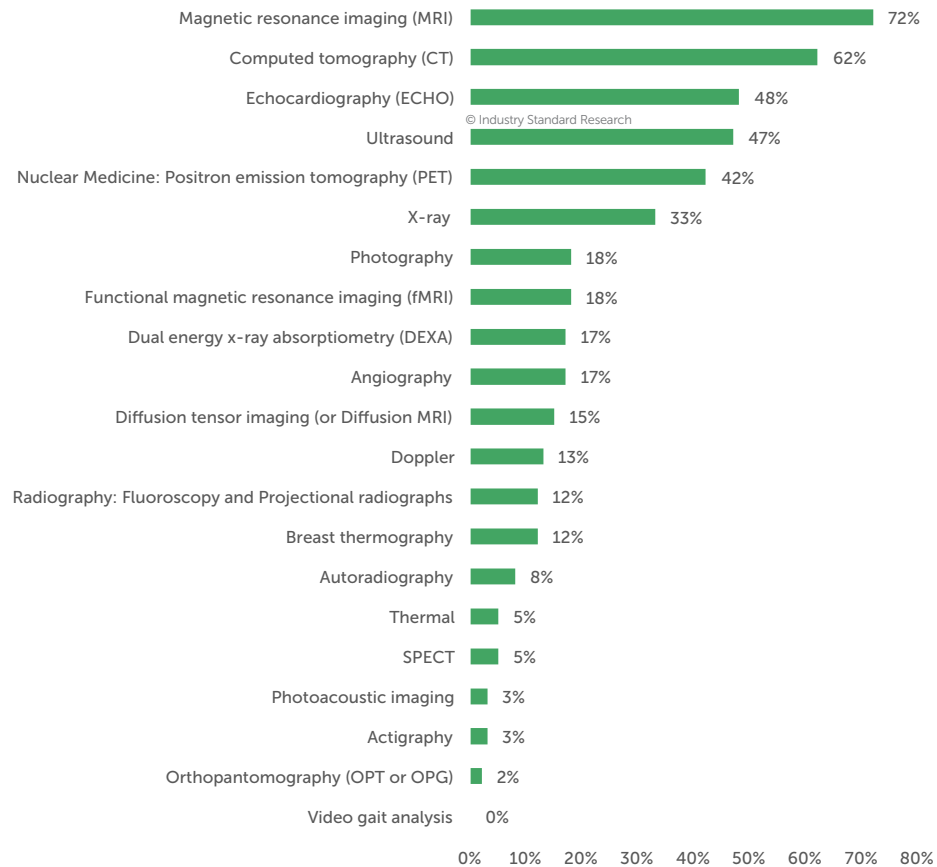
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Use of imaging modalities

Imaging modalities used in past 12 months

"Which of the following imaging services have you used in the past 12 months? (Select all that apply)" (Base=60)



Sample Page

Current use of imaging within clinical trials

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All Technologies

Average number of patients in clinical imaging trials by phase

Results are based on the number of trials (N=7,906) reported by clinicaltrials.gov to contain one of the imaging modalities (or variations of that imaging modality) in the trial's description. The chart reports the average number of patients participating in clinical trials by phase (as well as the total number of that phase's trials taking place). How to read chart: "In 2010, for the 193 phase I imaging trials that took place, there was an average of 40 patients participating in each trial."

	2010	2011	2012	2013	Total
Phase 0	1967 (N=19)				
Phase I	40 (N=193)				
Phase II	75 (N=444)				
Phase III	755 (N=192)				
Phase IV	339 (N=217)				
No Phase	3315 (N=1088)				
Total	1811 (N=2153)				

Data available in full report

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