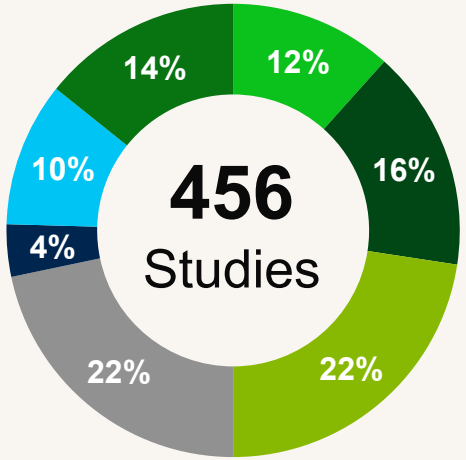
Experience and Expertise in Endocrinology

Fortrea

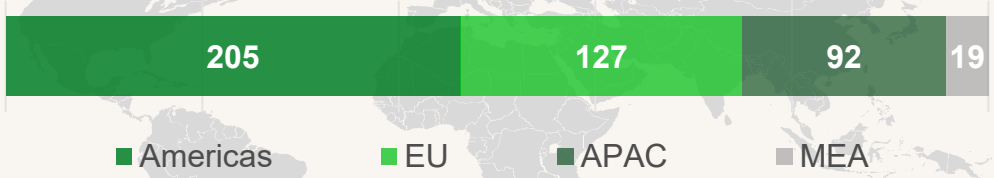
Global Clinical Experience - Endocrinology

Sites: 8,482 | **Patients:** 81,929 | **Countries:** 64

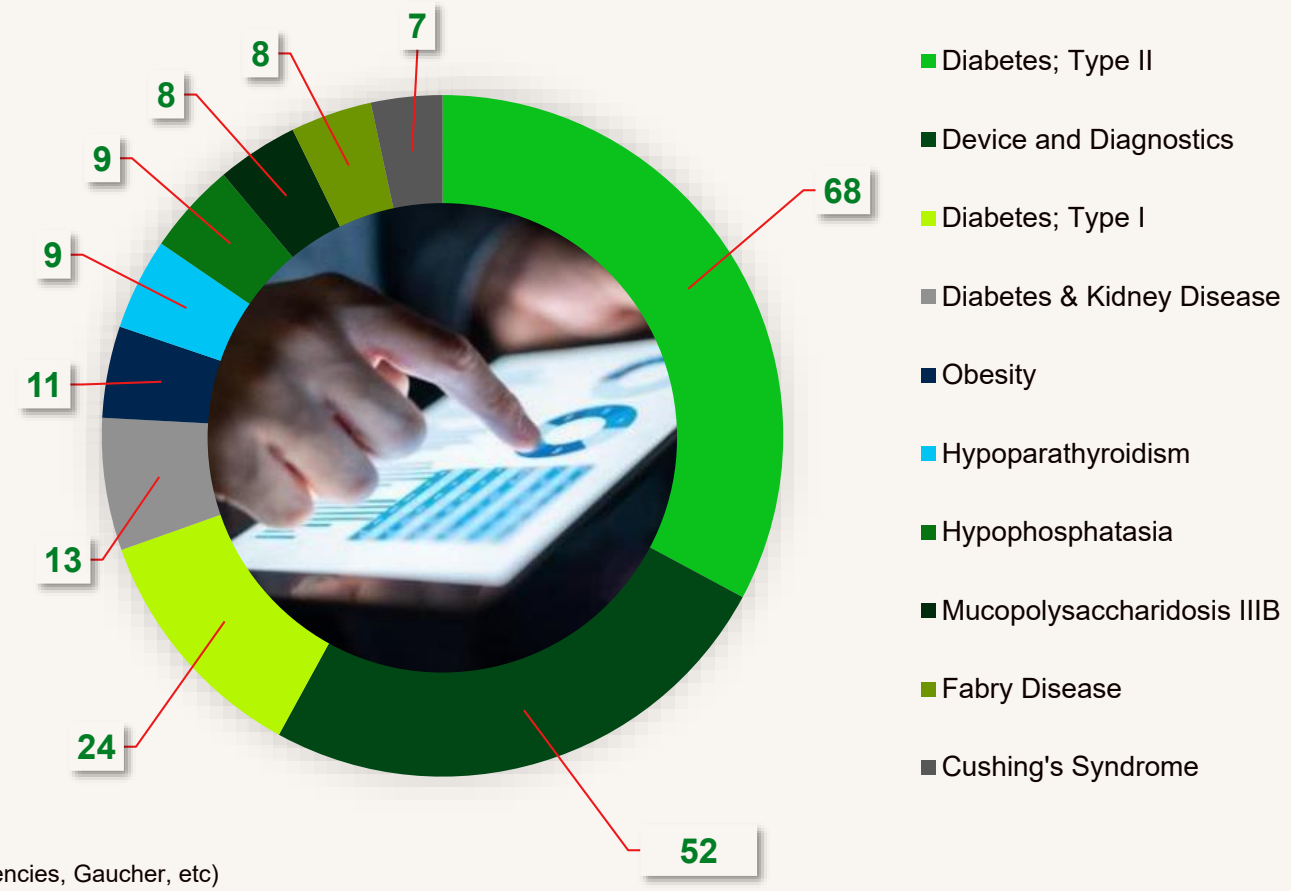
Studies by Phase



Studies By Region*



Top 10 Indications
(# of studies per indication)



*includes AATD, aHUS, PWS, Fragile X, CHI, hATTR, Lysosomal Storage disorders, growth hormone deficiencies, Gaucher, etc)

Data source: 5-year data: 2018-2022 Fortrea internal metrics. Data shown represent all studies with Endocrinology & Metabolism Experience listed as either primary or secondary therapeutic area.

* # of studies conducted per region. Many trials are conducted in multiple regions, some engagements are not region specific and therefore not included in region counts.

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Meet Some of the Fortrea Medical Team Supporting Endocrinology Indications

Plamen Penev, MD - Executive Medical Director, CVMER

- 25+ years of academic and clinical research experience in early (first in human to phase IIa) and late-phase studies IIb-III/IV studies.
- Therapeutic area expertise in T1D, T2D, obesity, NAFLD/NASH, DKD, hyperlipidemia and cardiovascular outcomes, and endocrinology.
- 50+ scientific publications

Mala Puri, MD - Senior Medical Director, CVMER

- Board Certified Pediatric Endocrinologist
- 10 years clinical experience in academic medicine
- 10 years experience in industry
- Areas of expertise: Type1 and Type 2 Diabetes (adult and pediatrics), Cardiovascular outcomes, Diabetic Kidney Disease studies, Pediatric Growth Hormone Deficiency, and Congenital Hyperinsulinism

Diane Gesty-Palmer, MD - Senior Medical Director, CVMER

- Board Certified Endocrinologist
- More than 15+ years of clinical and translational research experience in academic, pharma and CRO settings
- Clinical development experience across Phase I-IV for a broad range of endocrine therapeutic indications including T1D, T2D, cardiovascular outcomes, metabolic bone and calcium disorders, and rare disease
- Experienced contributor, author and reviewer of regulatory documents (IND, NDA and MAA modules), study reports, and manuscripts

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Meet the Fortrea Operational Strategy and Delivery Team Supporting Endocrinology Indications

JB Flinders, Ph.D. – Senior Director, Strategic Delivery and Growth

- Over 16 years of clinical research and academic experience
- Proven track record of designing, implementing, and driving successful operational, feasibility, and analytic strategy across early and late phase metabolic/endocrine (T1D, T2D, obesity, PWS, etc.), CV (HF, STEMI, ACS, PAH, HCM, CVOT, Lipids, etc), rare disease, device and oncology trials
- Published and presented on clinical trial strategy, operational success factors and site selection across multiple therapeutic areas

Rosemary Molinari – Executive Director, Global Project Delivery

- Experience in both global and North America studies in the areas of diabetes, cardiovascular and cardiovascular outcome studies, pediatric rare disease and surgical studies, venous thromboembolism treatment, transplant, and pain management
- 22 years of experience at Fortrea
- Recently responsible for overseeing and delivering a portfolio of five studies in T1DM from protocol development through to submission to regulatory authorities

Peter Alfinito, Ph.D. – Executive Director, Operational Strategy & Planning, CVMER

- 20+ years advancing drug development in the pharmaceutical & CRO industries in discovery, translational medicine & clinical development
- Expertise in clinical plan design from phases 1b - 3 across metabolic, hepatology, cardiovascular and renal indications
- Operational experience in obesity, MASLD/MASH, rare liver diseases and other metabolic diseases
- Maintains key relationships for Fortrea with industry experts in the metabolic field to facilitate the transition of trials from the design stage to the operational stage.

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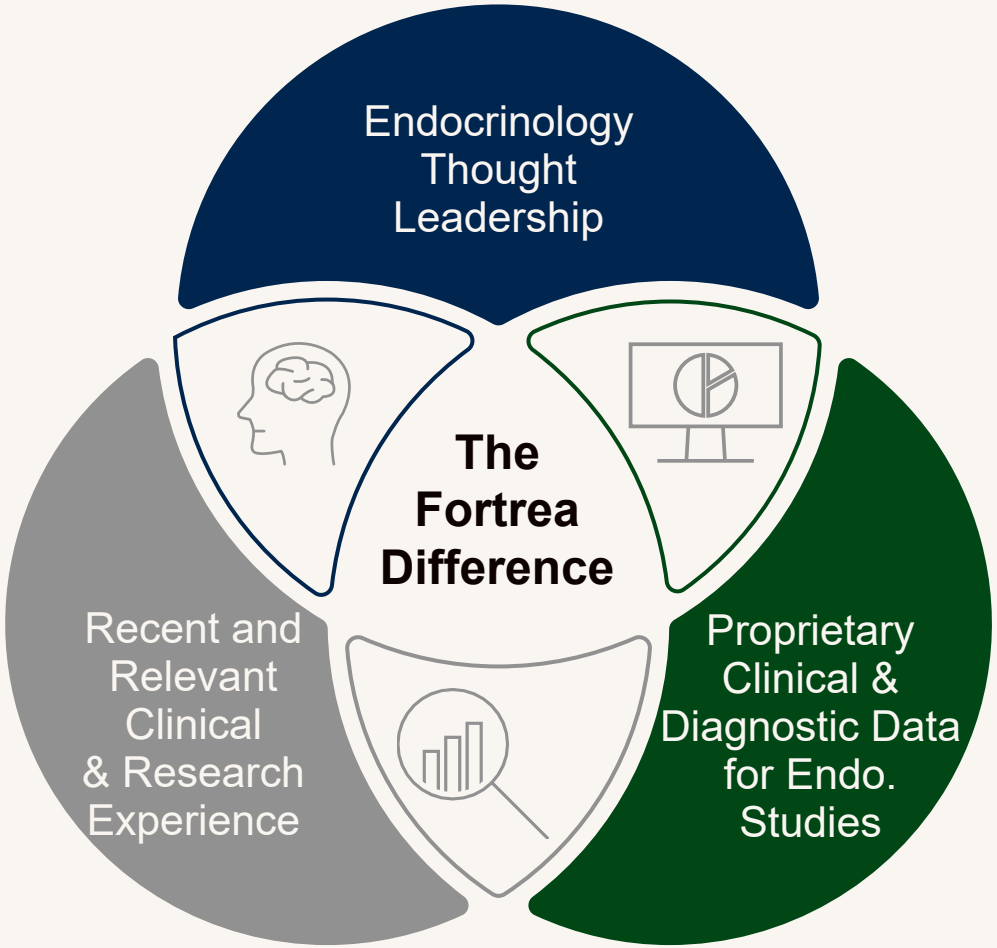
Fortrea's Experience Meets Your Full-Service Endocrinology Development Needs

- Fortrea is an industry leader in design, conduct, and management of metabolic and endocrinology drug and device trials
- In-house medical and operational expertise under the direction of **Dr. Cheerag Shorodaria** (VP and TA Head) in all facets of endocrinology trials, including SME's **Dr. Plamen Penev, Dr. Mala Puri, Dr. Diane Gesty-Palmer, Dr. Dara Schuster, Dr. Friedrich Mittermayer, Dr. Loukas Gourgiotis, Ms. Rosemary Molinari, and JB Flinders, Ph.D.**
- Recent and relevant experience in large portfolio of endocrinology trials from early-phase to registrational, including **Obesity**, ***T1D, T2D, Cell and Gene therapies, Prader-Willi Syndrome, Congenital Hyperinsulism, and more***
- Along with our ongoing site knowledge, we can combine Xcellerate® trial data with extensive Central Labs data* to enhance site selection and maximize patient recruitment
- Strong connections to advocacy groups, investigators, and organizations like JDRF, DAA, ADA, PWSA, CHI International, and several other groups around the globe to ease patient identification and increase community awareness for Endocrinology trials



*Fortrea will maintain exclusive CRO access to the Labcorp data that supports its clinical enabling solutions for a fixed period of time

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Fortrea's Unique Endocrinology Offerings

- Deep and broad enterprise-wide operational expertise in endocrinology indications supported by therapeutic area experts in medical, regulatory, strategy and operations, including: **novel cell therapies in T1DM, oral agents added to insulin in T1DM, Studies with injectable assets and implantable infusion systems for hormone delivery, rare pediatric diseases and many others**
- Unique insights from unparalleled endocrinology data and extensive expertise in protocol and clinical plan design, notably across diabetes, obesity, and early phase endocrinology studies.
- Device experience and vendor capabilities including CFR-compliant data aggregation from CGM devices and other remote technologies
- Extensive expertise in rare disorders appearing in childhood and adolescence along with unique capabilities in pituitary, adrenal and parathyroid hormone
- Experience with diabetes and obesity trials across Asia-Pacific with an in depth understanding of site selection, competitive landscape, and study conduct involving dedicated vendors with expertise in the region.

Employing our Strengths and Extensive Experience to Deliver Operational Excellence!

Fortrea Data-Driven Approach

Fortrea Patient-level Data

35 billion lab test results in company proprietary data sets,***
>5,000 diagnostic assays including genotype data
One of the largest sources of actual patient data in the world for improved trial design

Fortrea Central Lab Data

180k+ investigators,** | **50K+** individual protocols,** | **102 countries**
Generating more clinical trial data than any company in the world to support site selection and recruitment rates

Global Trial Source

Direct access to **160 million+** patient encounters per year***
>300,000 patients consented to allow Fortrea to reach out

Patient Intelligence

Global voice of the patient data across **50 indications** across **30 countries**
Provides, unique, critical insights to improve protocol design

Unique datasets power our capabilities to deliver higher performance in Endocrinology site selection, optimal patient recruitment and more accurate scenario forecasting.

** In past 5 years (2016-2020)
*** Insights from Fortrea Diagnostics

Fortrea will maintain exclusive CRO access to the Labcorp data that supports its clinical enabling solutions for a fixed period of time

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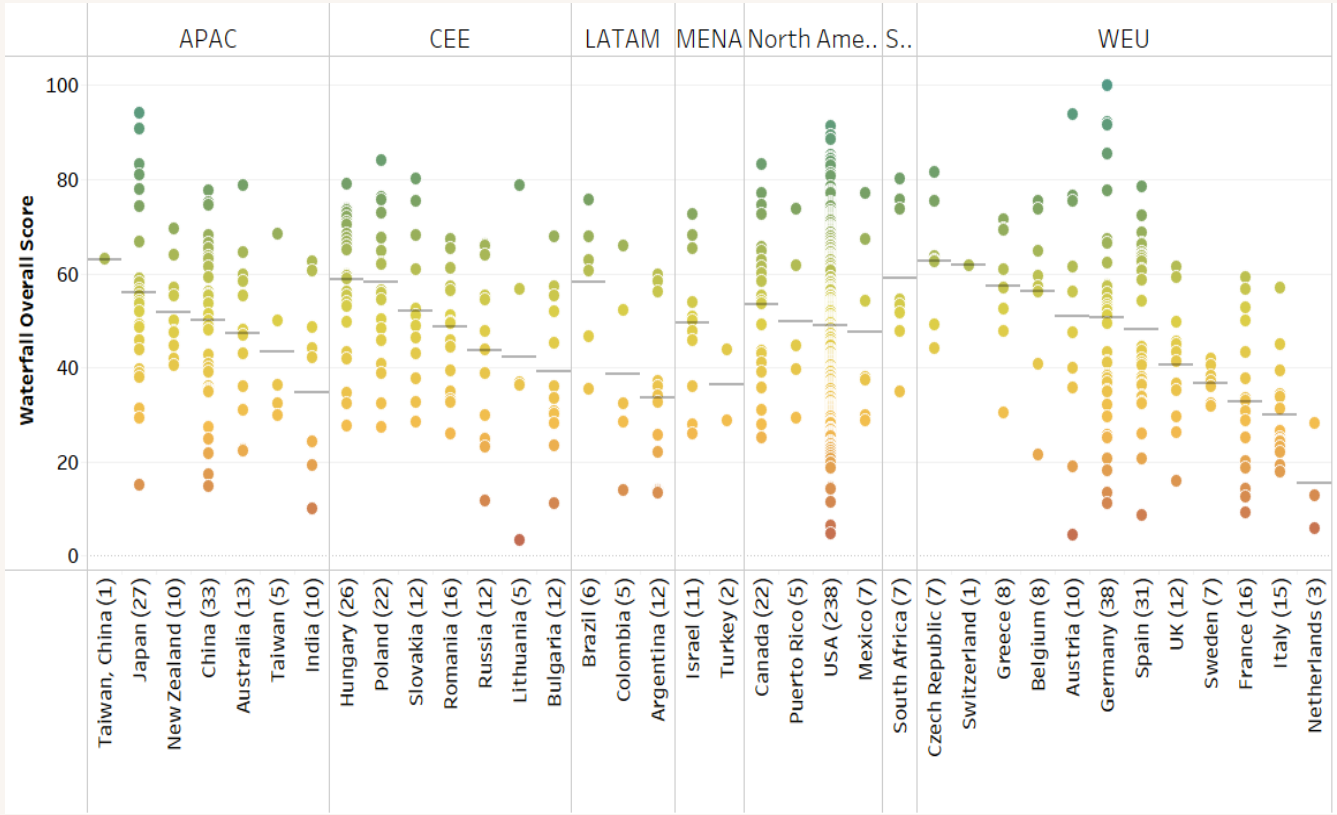
Investigator Performance by Country



Investigator detail from a set of our recent T1D trials

- Each circle represents a unique investigator. The database contains **thousands of physicians** from hundreds of recent endocrinology trials
- Ranking is based on recruitment performance, start-up time and quality metrics; providing holistic site performance detail
- Horizontal bars represent the median performance for the country, and these data are used to target high performing sites and support operational strategy
- Targeted site selection reduces non-performing sites
- Data available across a broad range of endocrinology indications across 64 countries

Data-driven site selection to maximize study efficiency

Fortrea will maintain exclusive CRO access to the Labcorp data that supports its clinical enabling solutions for a fixed period of time

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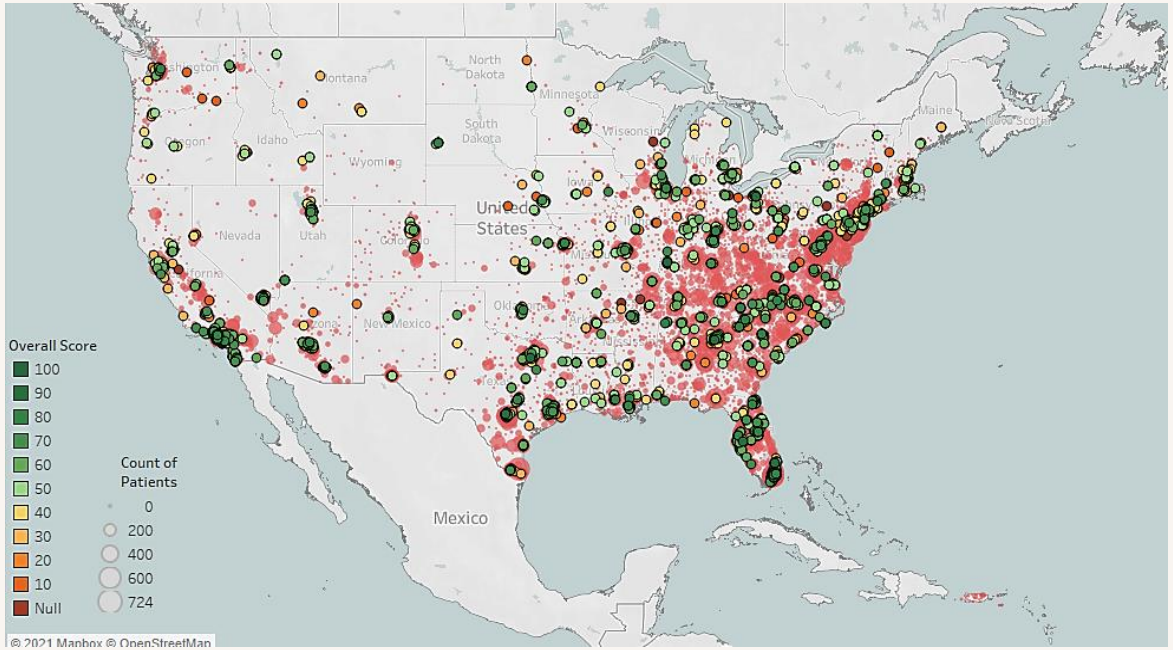
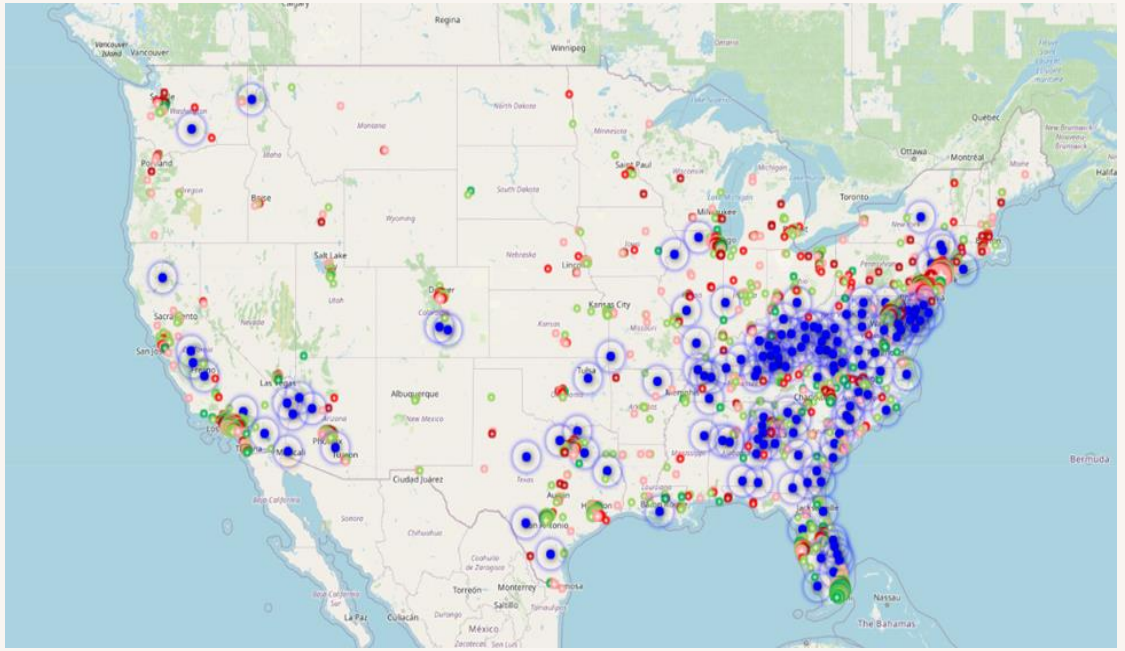
Integrating Real-World Lab Data





Delivering more informed site selection through Real World patient data

Fortrea uses our real-world lab data to locate areas of high patient density to place sites

We then overlap investigators who score highest in previous similar trials to maximize enrollment

To find hundreds of providers who recently saw the relevant endocrinology patients

Fortrea will continue to have CRO exclusivity for the Global Trial Source solution that enables patient recruitment and engagement for a fixed period of time

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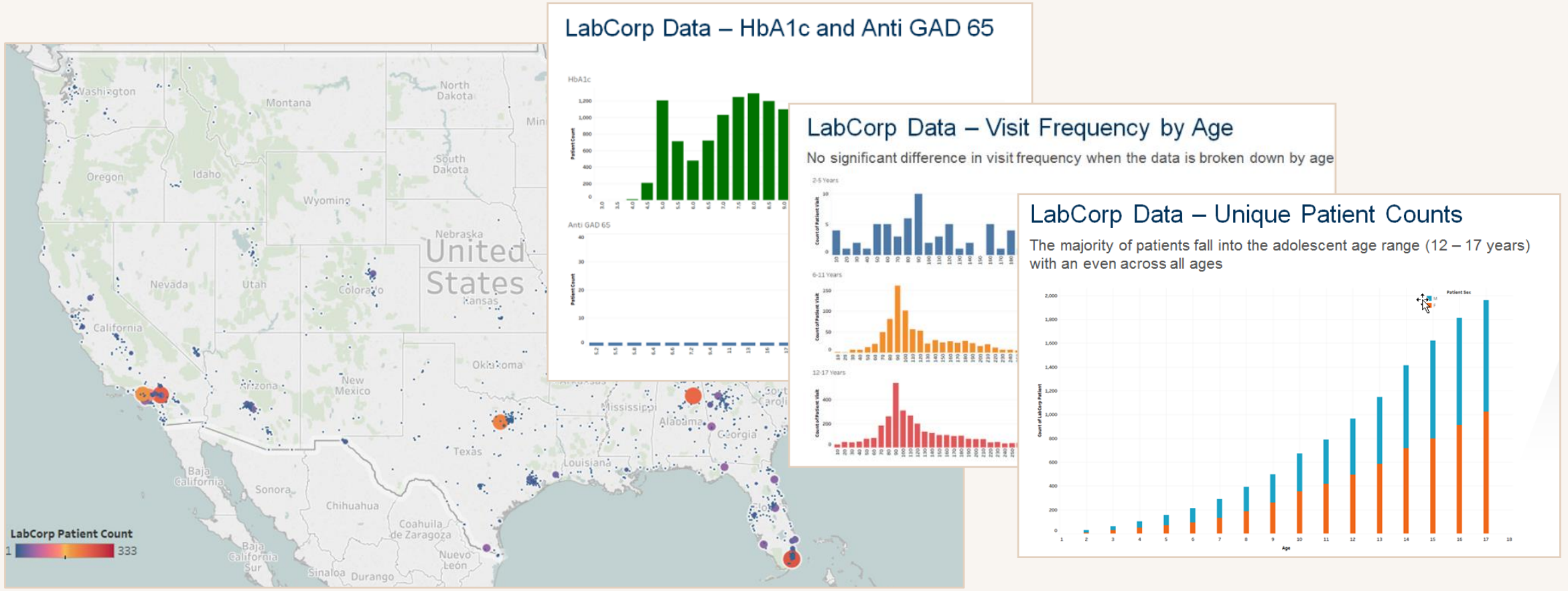
Fortrea Patient-level Data for Efficient Protocol Design



Data from Labcorp Diagnostic database

Incorporating our Patient Level Data to Enhance Protocol Design & Effectiveness

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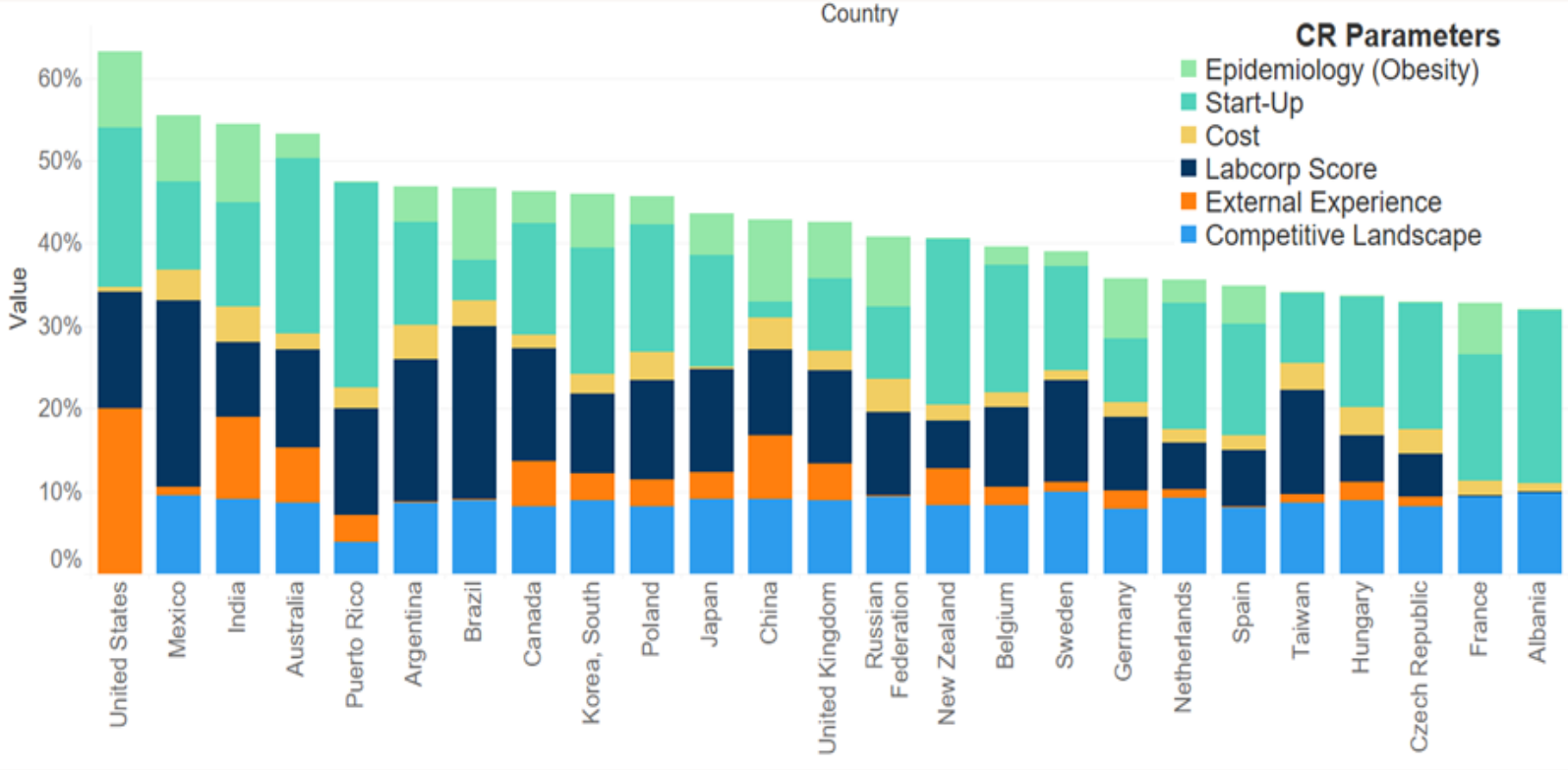
Harnessing Data to Select High Potential Countries



We score and balance a wide range of data analytics, financial metrics, and team experience to drive the most successful country & site mix for your trial

Leveraging Unique Metrics to Ensure Strongest Countries are Selected

Fortrea will continue to have CRO exclusivity for the Global Trial Source solution that enables patient recruitment and engagement for a fixed period of time

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Simplifying Studies with a Unified Platform for Sites/Patients

Strategic partnerships with Advarra and Veeva provide simplified and unified Site and Patient experience

Single Sign on for Sites and Patients

- One single sign on for sites – through Veeva Study Portal to access all study tech including Advarra
- One single sign on for patients – through Advarra to access all patient tools including Veeva services
- Dashboards to check patient compliance
- Remove protocol complexity with easy user interface

Provide Patient and Family Centric Approach

- Telehealth platform for patients
- Patient Document Repository
  - Information on visits
  - FAQs
- Reminders for Visits

Supplemental Site and Patient training

- Protocol Training
- Disease/Therapeutic specific training
- Process/Assessment/Digital Technology Training
- Population considerations (Families, caregivers)

eConsent

- Different modalities for a patient focused approach
- Allows the patients to consent their way
- Record always available for reference
- Clear audit trail for ICF version tracking

eCOA/eDiary

- Assign eCOA according to patient population
- Push notification to patients as per protocol
- Compliance and data integrity through entry windows

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Case Study: Successful Diabetes Global Program

Background

Global phase III programmatic suite of 15 studies in T1DM, T2DM and CVOT subjects with more than 19,800 patients and more than 2,300 sites

CHALLENGES

- Adequate patient exposure and meeting aggressive corporate timelines to support NDA submission
- Complexity of studies, from large global to single country trials
- Delivery of quality data from multiple data streams
- Balancing programmatic resources and endpoints across multiple diabetes indications

ACTIONS

- Implemented clear stakeholder management / communications plans from the beginning
- Deployed team structure with shared functional resources across multiple studies
- Implemented Xcellerate® tools and RBM to monitor ongoing safety of patients
- Proactively engaged Biostats team to produce and deliver quality submission-ready deliverables
- Leverage previous diabetes studies to pre-identify high enrollers and streamline site identification and selection
- Clinical operations plan allowed launch of the studies within 6 months

RESULTS

- Completion of all studies with quality data and submission-ready documents to support 2 NDA filings
- Met enrollment timelines and recruited 3,200 patients in 5 T1D studies (300 sites) and 4800 patients in 9 T2D studies (800 sites)
- Rescued two global CVOT studies with 11,800 patients and 1200 sites
- Locked 5 of the databases over a period of 9 months
- Managed multiple committees across protocols including successfully adjudicating of thousands of endpoints
- Managed a large number of vendors including CGM vendor

LESSONS LEARNED

- Focus on a full understanding of Sponsor / programmatic needs to facilitate working as “One Team”.
- Regular and open communication to allow brainstorming of ideas and mitigations for issues and risks throughout the study (both internally and with Sponsor)
- Engage functional departments into core team as early as possible to deliver quality processes and outcomes
- F2F KOMs with sponsor critical in establishing relationship building and full understanding of study scope and next steps
- Routine “road block” calls set-up with Sr. Leaders to provide updates on program status and support the team with resolving key challenges

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Case Study: Prader Willi Syndrome

Background

A Prader Willi study that had a high patient burden in the protocol required Fortrea expert revision.

First patient in was a key driver of success for the client, who needed to hit this goal for financial reasons

CHALLENGES

- Rare pediatric obesity trial using a Schedule 1 drug
- Aggressive FPI date, approximately 13 weeks from start-up agreement date
- High patient burden in protocol design

ACTIONS

- Expedited kick-off meeting to quickly identify the best path to site start-up.
- Experienced PM developed a strong relationship with the client starting at BDM
- Project Management resources were frontloaded to allow a higher level of resource at study start-up.
- Parallel workstreams expedite site initiation, vendor review, and contracts/budgets
- Strong site identification processes helped us identify sites with correct licenses required, already having a clinical trial agreement approved from previous studies, and could work with a central IRB.
- A member of our rare and pediatric indication team was assigned to keep in contact with the leadership team at the client to provide expertise and advocacy

RESULTS

- First site was initiated within 12 weeks of the start-up agreement being signed
- The first patient was screened within 2 weeks at the site.

LESSONS LEARNED

- Medical monitor involvement helps refine protocol to ensure patient access and site and IRB acceptability
- Parallel work allows activities to be done quickly, with client and Fortrea keeping up to the minute contact about timelines.
- Strong PM supports early relationship building and proactive management throughout the trial
- Maintaining key site relationships, and knowledge of their capabilities, supports rare disease start-up success

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Case Study: Successful Study in T2DM

Background

Phase III; China only;
37 active sites and
340 subjects;
Sponsor not a
Chinese-based
company

Challenges

- Meet aggressive corporate timelines to support regulatory submission
- Protocol amendment (sample size increased and extension study added) during the enrollment period
- Effective and timely communication with sponsor

Actions

- Weekly communication by Project Lead to support the sponsor PM to meet their required priorities and deadlines
- Quality check of investigator package to ensure a one-time pass. Engaged leading PI to accelerate EC review and HGRAC signature
- Shared site initiate plan weekly to accelerate initiation of sites with large patient pools

Outcomes

- Effective communication allowed sponsor to focus and feedback efficiency was greatly improved, eliminating delays in key tasks
- One round pass of leading site EC review and 2 batch of HGRAC submission, which saved 2 months
- Key milestone achievement of first SIV and FPFS enhanced team's confidence and unity to overcome challenges

Successful Conclusion
Recruitment Completed Four Weeks Ahead of Schedule

Fortrea's Value Proposition for Your Endocrinology Needs

Deep operational/ medical endocrinology expertise & site relationships

Enabling Fortrea to enhance study designs and deliver operational efficiencies across the full range of endocrinology indications and development phases

Seven Board-Certified Endocrinologists with deep drug discovery and clinical development experience

Both adult and pediatric, on staff to provide subject matter expertise for any endocrinology trial

Data-driven strategy and site selection

Leveraging our ongoing Investigator Performance Database from endocrinology studies, our Xcellerate Central Laboratories database* with over 50% of industry-sponsored studies, and Diagnostic Patient database using ICD10 codes and regional heat mapping

Rigorous approach to endocrinology study delivery and endpoints

Including CFR-compliant data aggregation from CGM devices, SMBG, and specific pediatric considerations in PK, blood volume, and consent/assent.

Forward facing, innovative, technology-enabled solutions

such as ePRO, eConsent, patient / site applications, tele-medicine and home nursing allowing for endocrinology trial business continuity as well as patient-centric solutions

*Labcorp Central Labs will remain Fortrea's default preferred provider for central labs services, and Fortrea will maintain exclusive CRO access to the Labcorp data that supports its clinical enabling solutions for a fixed period of time

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Thank You

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