

# **Healthcare Analytics Services**

The healthcare industry is evolving rapidly with a large volume of data through various sources such as genomics, electronic health records, medical monitoring devices and health-related mobile apps. Besides, the industry is also facing increasing challenges in cost and patient outcomes. Early adopters of AI in the healthcare space are reaping the benefits in terms of patient care and adding to their bottom-line results, and everyone is taking notice.

At Pepgra Healthcare, we help enterprises to organize, annotate, unify, analyze and visualize data for better business decision and to drive business transformation. We apply analytics or advanced algorithms to generate clinical and operational insights. The companies are using AI for several scenarios, including managing claims, detecting fraud, improving clinical workflow and increase performance, improve image quality and consistency, and predicting hospital-acquired infections. Pepgra, automation leader in AI, empowering leading healthcare companies to deliver AI solutions that are changing the industry. Pepgra healthcare applies artificial intelligence to unravel the complexity of human disease to meet the right treatment to the right patient at the right time.

**Ontologies in Healthcare:** Medical information systems need to be able to communicate complex and detailed medical data (e.g. medications, health conditions, prior treatments, etc.) securely and efficiency. However, such a task is challenging due to the structure and the concept of medical terminologies. At Pepgra, we construct medical domain ontologies for representing medical terminology system where our ontology development process starts with the requirement analyses phase where concepts, attributes, relationships, and axioms are identified (e.g. e-healthcare, the process of patient's admission, clinical examination, treatment). Our experts are familiar with various standard ontology frameworks, including SNOMED CT, RxNorm, MeSH, ICD-10, Gene Ontologyand closely work with healthcare application developers to develop ontologies that can assist in communication between humans, to achieve interoperability and to facilitate communication between software.

Semantic Annotation: Our S3 Healthcare Anno-

tation service tags your medical documents which can further enhance your semantic analysis. The tagger is more focused on recognizing named entities related to drug component (including brand, and generic names, qty, measurements units, etc.), medical device or active substances in the food linking to a specific disease.

*Medical Imaging Analyses:* At Pepgra, MIA2 have developed a tool for semantic medical image annotation and retrieval. Our semantic annotation tool is automated and context-sensitive workflow based on an image parsing system complemented by an ontology-based context annotation tool.

Text Mining and Natural Language Processing of Medical documents: We apply Machine Learning (ML) techniques such as Natural Language Processing (NLP) method to extract information from clinical notes. Our proprietary product provides text analytics services for news, life science and healthcare articles as well as social media messages. The product can able to analyze disease, interactions, genes and sequences and link them to entities. Our expert team explain the technical difficulty of your task by creating annotation guidelines and gold standard corpora. We help to create text analytic model by adapting rules, managing vocabularies, training ML models. Besides, we also make continuous improvement by enhancing the performance of the model by training them through personal feedback.

**Deep Learning Application:** Our deep learning algorithms have been trained in real-world medical images/HER data, thereby boost radiologist/physician confidence in Al. Our algorithms/software ensure to adhere to the US FDA guidelines. We also offer solutions for better asset utilization, caseload management, automatic triage, decision support, quantitative reporting, biomarkers for predicting prognosis and therapeutic responses.

#### Predictive Modelling for Personalized Treat-

*ment:* Data from Electronic Health Records (EHR), remote monitors and wearable devices allow doctors to predict illness and prescribe personalized treatment.

Algorithms flow chart or rulemaking Medical Recommender Systems: We use ontologies to support context-sensitive searching of information, as well as creating context-based rules for appointments, procedures, and test thereby we enhance the quality of healthcare.

#### Visual Analytics for healthcare

## **Our Expertise and Experience**

Here are the advantages of roping in Pepgra experts:

- > Well-versed in working with various stakeholders like clinical operations, data management, biostatistics, medical and safety teams to deliver documents.
- Experience in writing documents for various phases of clinical development including Phase I to Phase IV, PMS and Post-Authorization Safety Studies (PASS).
- Includes medical devices, prescription drugs (with extensive knowledge of pharmacokinetics, pharmacodynamics, and pharmacogenomics), over-the-counter medicines, veterinary medicines, cosmetics, biologics and nutraceuticals.
- Complete understanding of drug development process, including New Chemical Entities (NCEs), generic, biologics and biosimilars.
- > Adherence to country-specific guidelines and norms.
- Knowledge of guidelines pertaining to the following: GPP3, International Committee of Medical Journal Editors (ICMJE), Consolidated Standards of Reporting Trials (CON-SORT), Strengthening the Reporting of Observational studies in Epidemiology (STROBE), Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) and other applicable regulatory guidelines

Other guidelines include the following: Association of the British Pharmaceutical Industry (ABPI), Standards for Reporting of Diagnostic Accuracy (STRAD), ICH, FDA, and MedDev.

# Our Experts (Regulatory Medical Writers):

- Our geographically and professionally broad team of regulatory writers are qualified to the MSC, MD, MBBS, PharmD. or PhD level and possess extensive regulatory knowledge of industry guidelines located in 100+ countries.
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- Our regulatory medical writers have vast experience in writing and editing a wide range of clinical trial documentation involved in the regulatory process.
- Our writers undergo regular training conducted by the AMWA (American Medical Writers Association) and the EMWA (European Medical Writers Association) and other recognized medical writing organization to keep their skills at the vanguard of the medical writing field.
- > Our translation team consists of native speakers with many years of experience in translating all documents necessary for the performance of clinical studies.

#### Therapeutic Areas that we work

Vast experience in working across multiple therapeutic areas like Biochemistry, Diabetes, Gastrointestinal, Renal/Nephrology, Respiratory, Psychiatry, Rheumatology, Cardiovascular, Toxicology and Oncology

# Editing & Formatting:

 Submission-ready documents in terms of technical information, language, format, and template used to prepare the document

### Our Quality Control & Assurance:

- > All our clinical development services are done in accordance with our SOPs compliant standards. All our regulatory documents undergo thorough scientific, medical, editorial, quality check and assurance to ensure that the clinical documents we produce are scientifically accurate.
- The documents are prepared using sponsored-provided materials SOPs or Pepgra suite of International Conference on Harmonization ICH-compliant templates and style guides. In either case, Pepgra medical writing team ensures that the document we produce is of the highest quality in terms of scientific content, style and formatting.

#### Delivery:

- Timely delivery of the highest standard of quality
- > Culturally sensitive to the locale and competitive price

Our regulatory medical writers hold vast experience in handling a wide range of therapeutic areas and all phases of development that are sound from both a scientific and regulatory perspective.

#### **Related Services**

- ♂ Clinical Research Monitoring
- ♂ Clinical Study Design
- ♂ Global Regulatory Writing
- ♂ Statistical Programming

- ♂ Clinical Technology process
- ♂ Healthcare Analytics

-For Plans and Packages click here-

# **ABOUT US**

At Pepgra we are open to new ideas, different people and various cultures. We'd love to hear as to what you can offer us and we'd like to reciprocate as well. People with ideas, skills and qualifications in the medical and pharmaceutical industry are welcome to contact us for any kind of CRO engagements.

Pepgra has plenty of skills to offer you in various phases of clinical research trials. Be it regulatory writing, biostatistics, regulatory approvals, trial monitoring, drug/device development, and clinical reports.

Our native experts know your market, ethics, protocols and culture. Pepgra is your reliable CRO ally who can pitch in when it is critical. Become our partner today.