



# BIG DATA 4 BETTER OUTCOMES

For innovating clinical leaders and hospital management demanding accurate clinical insights to improve efficiency and patient care, while eliminating the hassles, inefficiencies & threats of current data practices, Lynxcare sets the new standard for conducting clinical research and data-driven care.

## AI-POWERED OUTCOME DATA PLATFORM

### Better care

- Ultimate goal for clinical leaders, healthcare professionals & mgt.
- Increase clinical productiveness and patient time using LynxCare
- Make outcome predictions for specific patients (risk profiling)
- Demonstrate and continuously improve the quality of care



*"No surgeon should treat a patient without knowing what the outcomes are. LynxCare provides us insights in these outcomes that are stuck in reports."*

*– Dr. Kevin Stone, Orthopedic Surgeon, Stone Clinic & Research Foundation*

### Data-driven

- Data exist in different types, formats & resides in various system/applications
- Source-agnostic platform for fast and reliable data aggregation, reduces complexity & increases efficiency
- Ensure productive clinical research & decision making using real-time data

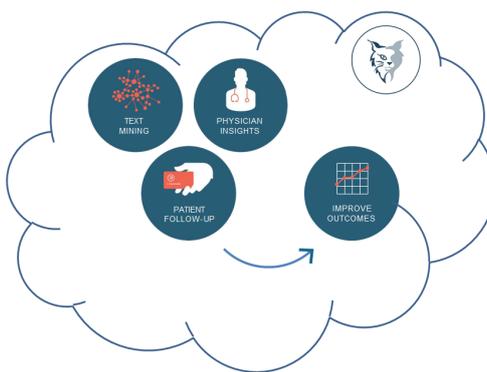
### Research-oriented

- Value of research lies in analyzing the data, however most resources go to data aggregation & collection
- Machine-based aggregation decreases human errors, threats & time-spend
- Unlock the power and value of data through unprecedented access and analytics



*"This system can fetch information from scans and can process it directly into an analytical model. It's amazing, right? This saves a lot of time. Because as doctors, we can now start the statistical analysis right away."*

*– Dr. Karl Dujardin, Cardiologist, Delta Hospital Belgium*



1000x faster access to insights!

Interested?

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**“Every hospital should follow every patient it treats long enough to determine whether the treatment has been successful, and then to inquire 'if not, why not' with a view to preventing similar failures in the future.”**

**– Ernest Armory Codman, M.D., 1914 Harvard medical**

## **Prospective case** **Orthopedics - Data driven efficiency & quality**

**630% ROI**  
**USING LYNXCARE'S PLATFORM**  
**FOR CLINICAL EFFICIENCY**

### **PROBLEM**

The orthopedic association of ZOL Genk (Belgium/10 surgeons) is a known center of reference for joint replacement. They are actively involved in research and the validation of the newest techniques in orthopedic surgery with the aim to optimize outcomes.

A big challenge they have, is that their association comprises multiple private practices in and outside the hospital creating scattered data sources with different data formats. They were looking for a technology solution that allows them to efficiently create their orthopedic clinical data warehouse with clinical data/PRO data for:

- **Quality reporting**
- **Market positioning as a center of reference**
- **Data driven optimization of operational efficiency**

### **HOW LYNXCARE HELPED**

#### **Automated outcome data aggregation**

With LynxCare all data are collected in a GDPR/HIPAA compliant way. Clinical outcome data is automatically extracted from the source medical records **eliminating the need for double data entry**. Financial, operational & clinical data is being aggregated to provide decision makers with actionable insights.

#### **Real time Alerting system - Gain of €72 per surgery**

LynxCare is generating real time alerts based on clinical & patient reported outcome data to identify patient populations in higher risk for complications. This system allows the department to cut down unnecessary postoperative consultations (70%) to increase patient trough-output & annual patient volume.

#### **Admin cost reduction - Gain of €148 per surgery**

By using the LynxCare platform the department was able to reduce the cost of administration (data-unit) significantly. In addition the department/hospitals is building up an enormous rich outcome database empowering their position with providers (real world date) & payers (negotiation power) in the light of outcome based reimbursement.

## **REDUCTION IN TIME TO INSIGHTS WITH + 2000% (MANUAL VS AI DATA MINING)**

## **Retrospective case** **Cardiology- Historical quality benchmark**

### **Baseline benchmark of the quality of care & international comparison.**

The cardiology network of AZ Delta (Belgium) consists of 40 interventional cardiologist & cardiologic surgeons and is the biggest cardiology network of Belgium. As they are in the forefront of new innovations for optimized care they wanted to benchmark their quality indicators in comparison with other international hospitals. As they did not have a magic button to get all the data/analytics out of their legacy hospital information system, they contacted LynxCare to do the job.

For the retrospective data processing study, all patients who underwent cardiac surgery between January 2012 and October 2017 were included. LynxCare's text mining technology (NLP) was used to extract the relevant clinical basic conditions and clinical outcome indicators from semi- and unstructured data sources in the electronic patient record. All extracted data points were automatically converted into SNOMED/ICD-10 coding for correlation analytics.

This case took LynxCare 2 weeks whereas a manual proces would have taken them 15 years. The resulted benchmark is used to prospectively monitor the clinical performance(KPI) as well as benchmark their results with international centers of excellence. Using the right case mix these insights guide the department to imake data (outcome) driven decisions concerning quality & operational efficiency.



**EFFICIENCY GAIN**



**DRIVE EXCELLENCE**



**QUALITY REPORTS**



**NEGOTIATION POWER**