# Steering MeddGGenius to a Data-Driven Future

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### **Introduction & Business Context**



- Outdated RDBMS & Teradata systems
- Inability to handle data types

Vision for a Modern Data Platform

- Must be regulatory compliant
- Improve overall patient care

**Objectives & Approach** 

- Focus areas of a data platform
- Proposed cloud architecture

# Data Platform Decision Requirements

	Data Integration	• Real-time & batch processing
	Data Security & Compliance	<ul> <li>Adherence to HIPAA &amp; NIST regulations</li> <li>Access controls, encryption, &amp; auditing</li> </ul>
_	Data Governance & Quality Assurance	<ul> <li>Master Data Management to eliminate silos</li> <li>Data integrity and consistency policies</li> </ul>
	Scalability & Resource Optimization	<ul> <li>Resource allocation based on volume of data</li> <li>Data lake approach for different data types</li> </ul>
	<b>Predictive Analytics &amp; Machine Learning</b>	• Integrating cloud-native ML capabilties



### **The Ideal Data Platform Architecture**

# Pros of an Azure-Based Cloud Solution



#### Scalability & Flexibility

• Dynamic resource scaling based on demand or need

#### Global Reach & Data Availability

• Network of data centers minimizes latency and ensures access to data

#### **Advanced Security Features**

• Supports multi-layered security & compliant with HIPAA and NIST regulations

#### **Advanced Analytics Capabilities**

• Predictive analytics and ML services enable modern data practices

# Cons of an Azure-Based Cloud Solution



**Data Migration Complexity** 

• Migrating from legacy systems requires time and expertise

#### **Operational Disruptions**

• Managing legacy systems and Azure system during migration

#### Learning Curve for Staff

• Training will be required as cloud architecture is unfamiliar for staff



# **Roadmap for a Data-Driven Future**

### **Machine Learning Use Cases**



