

Blockchain Opportunities in Healthcare

Roger Smith, PhD

AdventHealth Nicholson Center



Healthcare Use Cases

Pharmaceutical Supply Chain

Key features:

- Information registration at each step of supply chain
- Open data access permitting authentication of drugs



Clinical Trials

Key features:

 Time-stamped immutable record of clinical trial protocols and results



Patient-generated Health Data

Key features:

 Encryption and permanent storage of patient-generated health data



Billing and Claims Management

Key features:

- Automatic contract processing
- Self-execution of contracts as per pre-programmed terms and conditions



Electronic Health Records System

Key features:

- Access to real-time data and continuous availability
- Secure data with predefined user access rules
- Multi-party collaboration on the same medical record



http://ibm.com/blockchain http://www.eos-intelligence.com/perspectives/?p=2890

Benefits for Specific Projects

Use Case	Reduce Cost	Improve Patient Outcomes	Engage Patients, Enhance Experience	Enhance Healthcare Professional Experience
Provider Directory	✓			
Drug Supply Chain	✓	✓	✓	✓
Medical Device Track and Trace	✓	✓	✓	✓
Health Information Exchange	✓	✓	√	
Provider Credentialing	✓			✓
Anti-Fraud	✓		✓	

Blockchain Appropriate Data







- PII & PHI Data
- Rapidly Changing Data
- Large Volume Data
- Nationally Regulated Data

- Meta-Data (Links & Refs)
- Document Signatures
- Provider Directories

Where to get help

- Ophthalmic IT Vendors
 - Compulink, RevolutionEHR, Allscripts, Maximeyes
- Major IT Companies
 - IBM, HPE, Microsoft, Verizon
- Blockchain Start-ups
 - Hashed Health
- Strategy Advice
 - Gartner, Deloitte, Pricewaterhouse
- Warning
 - Avoid blockchain coin/token companies (ICOs)