

## **Supplementary material 1.** Survey about pediatricians' thoughts on the clinical application of blockchain technology to pediatric health care

### **1. Intention to use blockchain technology**

- A. I intend to use blockchain technology for my hospital work.
- B. I plan to use blockchain technology for my hospital work.
- C. I expect to use blockchain technology for my hospital work.
- D. I will try to use blockchain technology in my hospital work.

### **2. Attitudes toward blockchain technology**

- A. It is desirable for me to use blockchain technology to handle hospital work.
- B. It is a good idea for me to use blockchain technology to do hospital work.
- C. It is wise for me to use blockchain technology to do hospital work.
- D. I like to use blockchain technology to do hospital work.

### **3. Expected performance of using blockchain technology**

- A. The use of blockchain technology will increase my productivity in hospital business processing.
- B. Using blockchain technology will speed up my hospital business processing.
- C. The use of blockchain technology will improve the quality of the results of my hospital business results.
- D. Through the use of blockchain technology, my hospital work will be handled more easily.

### **4. Ease of use of blockchain technology**

- A. It will be easy for me to use blockchain technology to handle my current hospital work.
- B. It will be easy for me to learn how to use blockchain technology to handle my hospital business.
- C. It will be easy for me to use blockchain technology to handle the hospital work I intend to do in the future.

### **5. Environment for using blockchain technology**

- A. I have the information technology (IT) resources (e.g., IT devices, experts) needed to use blockchain technology.
- B. I have the necessary knowledge to use blockchain technology.
- C. Blockchain technology is well compatible with the hospital work support information system that I am using.

### **6. Favorability of blockchain technology**

- A. Through blockchain technology, patients can choose the scope of storage, distribution, and management of medical information themselves, breaking away from the traditional method of storing and managing medical information in hospitals.
- B. Through blockchain technology, all of the patient's medical information can be delivered to the medical staff.
- C. Since hacking is impossible using blockchain technology, the security of the patient's medical information can be strengthened.
- D. Using blockchain technology, the medical chart once entered by the doctor cannot be modified without the consent of the patient.
- E. Blockchain technology allows patients to freely access their medical information anytime, anywhere.
- F. With blockchain technology, when a patient goes to another hospital, there is no need to print the chart of an existing hospital on paper or put image information on a CD and deliver it to other hospitals, thereby facilitating exchange of medical information between hospitals.
- G. Blockchain technology can reduce repetitive tests, thus reducing patient treatment costs and shortening treatment time.
- H. Blockchain technology makes it possible to use standardized medical big data for precise and customized medical care.

**7. Necessity and feasibility of services that can be implemented through blockchain technology in relation to hospital business**

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Domain	Necessity	Feasibility
Patient-centered medical data management service		
Personal lifelog data integrated management service		
Simplified insurance payment service		
Pharmaceutical safety distribution service		
Integrated medical data management service		
Clinical trial data sharing service		
Genome analysis data safe transaction service		
Integrated management of medical device licensing		
Clinical research data sharing service between countries		

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