Ten Ways in Which LifeMed™ Smart Card Solutions Meet HITECH Act Initiatives: Helping Healthcare Providers and Organizations Improve Care Delivery, Reduce Costs, and Achieve Meaningful Use

The Department of Health and Human Services’ Office of the National Coordinator (ONC) states that electronic health records provide the following benefits for providers and their patients:

**Complete and accurate information.** With electronic health records, providers have the information they need to provide the best possible care.

**Better access to information.** Electronic health records facilitate greater access to the information providers need to diagnose health problems earlier and improve the health outcomes of their patients. Electronic health records also allow information to be shared more easily among doctors’ offices, hospitals, and across health care systems, leading to better coordination of care.

**Patient empowerment.** Electronic health records will help empower patients to take a more active role in their health and in the health of their families. Patients can receive electronic copies of their medical records and share their health information securely over the Internet with their families.

The LifeMed™ fully integrated smart card and cloud technologies provide all of these benefits and more in innovative ways. LifeMed™ smart cards make critical information readily available to healthcare providers and facilities, which in turn positively impacts care quality, accuracy and cost. LifeMed™ smart card and cloud solutions allow health information to be easily exchanged among providers and across systems, making key health information mobile and exchangeable and facilitating coordination of care. LifeMed™ cloud solutions also allow healthcare information to be transformed into a standardized, electronic, accessible, readable and usable format that can be accessed by patients and their families through secure patient portals.

Following are ten areas in which LifeMed™ smart card and cloud technologies provide a modular EHR (electronic health record) solution and meet HITECH and Meaningful Use requirements:

1. **Streamlines Patient Registration and discharge.** With one quick scan of the LifeMed™ smart card, as a patient presents it to the registration or admission desk, healthcare organizations can decrease patient wait times, improve quality and heighten efficiency by instantly confirming a patient’s identity, checking-in/registering the patient and verifying insurance. Because the process does not rely on human data entry or transcription, errors are virtually eliminated. Discharge Capabilities: The patient simply enters the card into a reader at discharge and the system recognizes the identity, matched to the visit, updates the card with demographics and medical information and the Patient Data Portal with the required discharge information (follow up appointments, medication information, education, instructions, activity requirements, dietary care, etc) and triggers required education materials to be forwarded to the patient’s email address.

2. **Fulfills Government Requirements for Confirming Identity Verification.** Smart card technology is currently used in the Department of Defense Common Access Card (CAC), the Federal Information Processing Standard (FIPS) 201 Personal Identity Verification (PIV) card (issued to all federal employees and subcontractors), the Transportation Worker Identification Credential (TWIC), and the U.S. electronic passport. Using standards such as FIPS 201, LifeMed™ smart cards can provide single sign-on solutions to EHRs for government-employed medical personnel such as physicians and nurses.

1 [http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__meaningful_use_announcement/2996](http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__meaningful_use_announcement/2996)
3. **Provides a Health Information Exchange.** A one-time initial patient registration through the LifeMed™ solution feeds the same data across all LifeMed™ reader equipped outpatient clinics and inpatient facilities organization-wide. Further, by prepopulating verification and registration screens with patient ID and key data (demographics, photos, signatures, and insurance and health data), coordination of care is facilitated, preventing patients from having to register at the physician’s office, reregister at the lab, and reregister once again at radiology, etc. In addition, data can be up/downloaded, stored and updated to and from EHR patient portals and other Health Information Exchange (HIE) sources. LifeMed™ cloud solution also provides a method in which disparate EHRs can exchange health information.

4. **Increases Patient Privacy and Security.** LifeMed™ smart card solutions meet or exceed all mandates and requirements for patient privacy, safety, records, system security and confidentiality. All LifeMed™ smart card data is encrypted, and all data transmitted complies with HL7, SnoMed and ISO standards. Medicare and Medicaid data and statistics are maintained per federal requirements. LifeMed™ also provides automated time-based reporting and reviewing of patient data, protecting healthcare information with sophisticated encryption algorithms that allow access only by authorized readers. LifeMed™ allows for multi-factor authentication, requiring the use of a second security factor such as a personal identification number (PIN) or a biometric (e.g., a fingerprint), which satisfies requirements such as those for ePrescribing, and has the capability to provide strong authentication, digital signatures, and security through encryption.

5. **Prevents Duplicate Records.** LifeMed™ smart cards can significantly decrease the incidence of duplicate records and the expenses associated with such occurrences. Linking a patient to his or her health records seems like a simple process, but human errors such as transcription of the wrong medical record number can lead to issues such as matching a patient to an incorrect record or creating a duplicate record when the correct one cannot be located. LifeMed’s philosophy of “One Identity = One Patient = One Record” incorporates using authenticated identifiers on the card to match the patient to his or her individual medical record, improving administrative functions such as billing and registration and enhancing continuity of care.

6. **Provides Consistent Branding Across the Organization and Beyond.** By providing a single tool for patient identity management, healthcare organization identification, and provider group/practice management affiliation, the LifeMed™ smart card works to build stronger community alliances between healthcare organizations, integrated delivery networks, hospital systems, provider networks and auxiliary services. The LifeMed™ smart card can replace a host of cards a patient or consumer would otherwise have to carry (insurance IDs, allergy cards, registration cards) in order to be known throughout the organization. In addition, the LifeMed™ smart card makes the patient’s healthcare provider organization of record immediately known and recognized to other members of the healthcare community such as pharmacies, durable equipment providers, and others.

7. **Serves as a Real-Time, Portable Mini Electronic Health Record.** LifeMed™ smart card contains encrypted patient demographics such as name, date of birth, height, updatable weight and BMI, and other key information. In addition, the smart card is capable of storing other key health data components such as current medications, allergies, (medication and non-medication), immunizations, conditions/problem list, smoking status, surgeries and hospitalizations. The LifeMed™ smart card can also be configured to store important patient information such as implanted devices, pacemakers, artificial valves, defibrillators, advance directives, organ donation status, etc. Of course, unlike standard EHRs, the LifeMed™ smart card is mobile and goes with the patient; coupled with LifeMed’s cloud technology, the solution becomes of even greater value in terms of portability and accessibility.

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2 [https://www.cms.gov/informationsecurity/downloads/SI.pdf](https://www.cms.gov/informationsecurity/downloads/SI.pdf) : CMS has defined eleven (11) information types processed on or by CMS information systems. For each information type, CMS used FIPS 199 to determine its associated security category by evaluating the potential impact value (i.e., High, Moderate, or Low) for each of the three (3) FISMA/FIPS 199 security objectives (i.e., confidentiality, integrity and availability [CIA]). For each information type, CMS also used OMB M-04-04 to determine its e-Authentication assurance level (i.e., Levels 1–4) by evaluating the degree of authentication confidence required to protect the information.
8. **Provides First Responders with Potentially Life-Saving Information.** In an emergency, LifeMed™ smart cards can enable the immediate identification of a patient and access to the patient’s medical record with a simple portable reader carried by the First Responder. Regardless of whether or not the patient is conscious, is emotionally or physically unable to accurately convey the entire medical picture, or has language barriers that impede effective communication, the LifeMed™ smart card provides the key health information necessary in critical situations. While patients benefit from improved and faster treatment and medical care, hospitals and medical centers benefit from more effective management and coordination of care from the first responders through the emergency room department to potential transition to inpatient care. When the First Responder accesses information from the LifeMed™ smart card via the portable reader, he or she can ascertain vital medical data and use that data to evaluate the patient or deliver care at the scene or en route to the hospital.

9. **Bridges the Gap for Several Meaningful Use Measures.** The LifeMed™ smart card and cloud technology solution can provide a means in which an eligible hospital or provider can satisfy federal meaningful use requirements by offering solutions for the following Stage 1 measures: electronic provision of discharge instructions, accessibility to patient education, provision of a health information exchange, and provision of privacy and security of electronic health records. As a modular EHR solution, LifeMed™ works with its healthcare partners to develop workflows and incorporate technologies that will help them achieve their meaningful use of EHR goals, from assessment, through implementation, reporting and attestation.

10. **Satisfies HIPAA Compliance Requirements.** The LifeMed™ smart card offers covered entities under the Health Insurance Portability and Accountability Act (HIPAA) an effective tool to facilitate compliance with the HIPAA Privacy Rule. One of the key provisions of the HIPAA Privacy Rule is to assure that an individual’s health information is properly protected and that individuals can control how their health information is accessed and used. Providing healthcare organization employees as well as patients with the LifeMed™ smart card helps ensure that health information is accessed only by those with the appropriate credentials. Many recent high-profile breaches of protected health information have occurred because data was kept on unsecured, unencrypted devices such as CDs and thumb drives, or because entities have been able to access medical records without proper authorization. LifeMed™ credentials minimize or eliminate such breaches by utilizing embedded secure smart chip technology, encryption and other cryptography measures that make it extremely difficult for unauthorized users to access or use information on the smart card or to create duplicate cards. These capabilities help to protect patients from identity theft, protect healthcare institutions from medical fraud, and help healthcare providers meet HIPAA privacy and security requirements.

In summary, LifeMed™ provides an unparalleled solution for the meaningful use of mobile, exchangeable, confidential, private and secure, accurate and shareable healthcare information for healthcare organizations, providers and patients. Smart card-based systems such as LifeMed™ will better position healthcare organizations and providers for meaningful use of electronic health records, while addressing many of the security and privacy challenges that come with electronic health records and health data exchange.