

Storage Media for Health Information

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Background

When applied to health information, media refers to the materials on which health information is stored. Virtually every state regulates medical record media. While all states authorize the use of paper for storing health information, other media may be more useful and less expensive. Microfilm, for example, has been the most pervasive alternative and has been approved by the majority of states and by the federal government. Other options include microfiche, optical disk, and computer storage. As the healthcare industry continues to move toward computerizing functions in the HIM department, it is especially important for HIM professionals to be aware of the requirements related to health information storage.

Legal and Regulatory Requirements

The Health Care Financing Administration authorizes computerized health records as long as they are maintained in a form that can be reproduced legally. In addition, the Medicare Conditions of Participation for Hospitals specify that hospitals must use a system of record maintenance that ensures the integrity of the authentication of the record and protects the security of all record entries. The system must ensure that only proper individuals sign records and that entries may not be altered improperly.¹

The Joint Commission on Accreditation of Healthcare Organizations has permitted the computerization of medical records for many years.

State laws regulate authorized media for health records typically in licensure statutes or administrative regulations.

Some states have discarded their laws regarding health record storage and only require that healthcare providers follow federal laws. In some states, language such as "or otherwise" or "other usable formats" does not specifically outline health record storage media, but seems to imply that computerized storage is permissible. HIM professionals should check with their state department of health or a similar licensing authority to verify the correct interpretation of any vaguely worded provisions.

HIPAA

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) places security requirements on electronically stored health information. Provider organizations, payers, and claims clearinghouses that maintain health information in an electronic format must comply with HIPAA's proposed security regulations. HIPAA's regulations require implementation of administrative and technical safeguards to ensure the security and integrity of all electronic health data. The proposed regulations list a series of options for implementing technical and administrative safeguards. The final security regulations are expected to be published before the end of 2000. When planning to acquire new hardware or software related to electronic record storage, HIM professionals should seek the advice of privacy and security experts to ensure that the new systems will comply with HIPAA regulations.

States with Laws and Regulations Pertaining to Storage Media

States that do not authorize computerized patient records may be in the process of enacting statutes authorizing electronic record storage. If your state is not listed, check with your state licensing authority to see if electronic health record storage is permitted. HIM professionals are advised to consult with an attorney before ruling out the decision to adopt a new storage

media. Attorneys can advise on the potential admissibility of a proposed storage media.

State	Summary of Law/Regulation	Citation
Alaska	A healthcare provider may maintain and preserve medical records in an electronic format that protects the physical security of the records and protects the records from access by unauthorized persons. A healthcare provider who maintains and preserves the records in an electronic format that provides these protections is not required to maintain a separate paper copy.	Alaska Statutes 09.25.510
Arizona	Records shall be preserved in the original or by microfilm.	Arizona Administrative Code Sec. R9-12-115
Arkansas	Medical records may be microfilmed for storage.	The Arkansas Register Vol.3 No.3a
California	General acute care hospitals', psychiatric hospitals', and chemical dependency recovery hospitals' health records must be kept for all admitted patients, either as originals or accurate reproductions, and must be maintained in such form as to be legible and readily available upon request. For home health agencies, if the agency uses computerized patient records, policies and procedures shall be established and implemented that address data security, privacy, and confidentiality in conformance with state law. California law includes a section containing requirements for providers of health services using electronic record keeping systems. These additional requirements do not apply to patient records if hard copy versions of the patient records are retained.	22 CCR 70751 and 22 CCR 74731
Colorado	Medical records shall be preserved as original records or on microfilm.	6 Code of Col. Regs. § 1011
Connecticut	For general hospitals, medical records must be accessible and can be microfilmed by a process approved by the state department of health. The Regulations of Connecticut State Agencies, Title 19a, provided an extensive set of rules and regulations for computerized medication administration systems and computerized records. Licensed, private freestanding facilities for the care or treatment of substance-abusive or dependent persons may use computerized systems to maintain an organized record for each client and for the administration of medications.	Regs. Conn. State Agencies 19-13-D3 Regs. Conn. State Agencies § 19a-495-570
Delaware	Freestanding emergency centers, birth centers, and freestanding surgical centers: medical records of adults can be preserved on microfilm. The Division of Mental Retardation states that only authorized personnel shall have access to electronic data processing equipment that is used for personal information systems. This	CDR 40-700-037 CDR-40-600-007

	provision, along with one of the confidentiality provisions of this section that refers to an electronic database, indicates that Delaware permits electronic storage and processing of data.	
Florida	Hospitals are required to provide uniform data definitions and methods for storing data, including electronic mediums and optical imaging.	59A-3.213, F.A.C.
Georgia	Hospital records must be preserved as original records, microfilms, or other usable forms and shall be such as to afford a basis for complete audit of professional information. Georgia has developed a policy of rules to promote and define the use of electronic records and signatures. Certain portions are applicable to healthcare facilities.	Ga. Comp. R., & Regs. R. 290-5-6-12
Hawaii	Medical records may be computerized or minified by the use of microfilm or any other similar photographic process, provided that the method used creates an unalterable record. The confidentiality provision for hospital records implies that electronic media are permitted for such records. The provision states that all information contained in an automated data bank shall be considered confidential.	HRS 622-58
Idaho	Hospital records relating to the care and treatment of a patient may be preserved in microfilm or other photographically reproduced form. Such reproduced and preserved copies shall be deemed originals.	Idaho Code 39-1394
Illinois	All original medical records or photographs of such records shall be preserved in accordance with a hospital policy based on American Hospital Association recommendations and legal opinion.	77 III Admin. Code
Indiana	Medical records shall be retained in their original or legally reproduced form as required by federal and state law. The making or recording of hospital medical records by electronic data processing systems is an original written record.	410 IAC 15-1.5-4 and Burns Ind. Code Ann. Sec. 34-43-1-2
Iowa	Accurate and complete medical records shall be written for all patients and signed by the attending physician. These shall be filed and stored in an accessible manner in the hospital.	481 I.A.C. 51.12 9135B
Kansas	Medical records may be microfilmed after completion. If the microfilming is done off the premises, the hospital shall take precautions to assure the confidentiality and safekeeping of the records. Under ambulatory services, nothing in the regulations shall be construed to prohibit the use of properly automated medical records or use of other automated techniques, provided the regulations stated herein are met.	K.A.R. Sec. 28-34-9a
Kentucky	"Record" means information that is inscribed, stored, or otherwise fixed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.	KRS Sec. 369.010
Louisiana	A hospital record or hospital chart may be kept in any written, photographic, microfilm, or other similar method, or may be kept	LA. R.S. 40:2109

	by any magnetic, electronic, optical, or similar form of data compilation approved for such use in a rule promulgated by the Department of Health and Hospitals. No magnetic, electronic, optical, or similar method shall be approved unless it provides reasonable safeguards against erasure or alteration. A hospital may, at its discretion, cause any hospital record or part thereof to be microfilmed, or otherwise reproduced, in order to accomplish efficient storage and preservation of hospital records.	
Maine	Records shall be preserved either on paper or by other electronic optical means.	M.R.S. § 456
Maryland	Records for all patients shall be maintained in accordance with accepted professional standards and practices.	Md. Health- General Code Ann. Sec. 4-304
Massachusetts	Records may be made in handwriting, or in print, or by typewriting, or by photographic or microphotographic process, or any combination of the same. Whenever preexisting records have been photographed or microphotographed and the photographs or microphotographs have been duly indexed or filed, such hospital or clinic, upon notifying the supervisor of public records, may destroy the original records. Mental health facilities: Facilities may put on microfilm or other form of electronic storage an individual case record after 10 years have elapsed with such patient. However, such microfilmed records shall be maintained for at least 20 years after being microfilmed. Any form of electronic storage system shall have adequate backup and security provisions to safeguard against data loss, as well as against unauthorized use.	105 CMR 150.013 104 CMR 27.17
Michigan	Hospital medical records shall be preserved as original records, abstracts, microfilms or otherwise and shall be such as to afford a basis for a complete audit or professional information.	MAC R 325.1027
Minnesota	Health records can be transferred and recorded upon photographic film of convenient size for the preservation thereof as evidence. Nursing homes: This section outlines the requirements for an electronic paperless HIM system.	Minn. Stat. Sec. 145.30 Minn. R. 4658.0475
Mississippi	Any hospital may, in its discretion, cause any hospital record or part thereof to be reproduced on film or in any other acceptable form of medium, as determined by the licensing agency, which shall include, but not be limited to, microfilming, photographing, photostating, or storage on optical disks. After the records have been reproduced, the hospital may retire the original documents so reproduced.	Miss. Code Ann. Sec. 41-9-77
Missouri	Storage mediums are not specifically addressed. However, for hospitals it is stated that documentation shall be legible, dated, authenticated, and recorded in ink, typewritten, or recorded electronically.	19 CSR 30-20.021

	Alcohol and drug abuse programs: This section outlines requirements for records maintained on computer systems.	9 CSR 30-3-3.880
Montana	A medical record may be microfilmed or preserved via any other electronic medium that yields a true copy of the record if the healthcare facility has the equipment to reproduce records on the premises. On April 20, 1999, the Montana House of Representatives passed a bill providing for the use of electronic records and electronic signatures in transactions with state agencies and local government units and providing for legal recognition of electronic health records, electronic signatures, and electronic contracts in state agency proceedings.	Mont. Admin. R. 16.32.308 199 Mt.ALS 365; 1999 Vol. HB
Nebraska	The medical record of each patient shall be maintained and preserved, in original, microfilm, or other approved copy.	Neb. Adm. Rules & Reg. 175-9-003.04
Nevada	Healthcare records may be retained in written form or by microfilm or any other recognized form of size reduction, including, without limitation, microfiche, computer disc, magnetic tape, and optical disc that does not adversely affect their use for the purposes of NRS 629.061. Health records may be created, authenticated, and stored in a computer system that limits access to those records.	R.R.S. Nev. Sec. 30-3409
New Hampshire	Storage mediums are not specifically addressed; however, it is stated that medical records shall be safeguarded against loss or unauthorized use by implementation of use, handling, and storage procedures.	N.H. Adm. Rules, He-P 803.06
New Jersey	A patient record may be prepared and maintained on a personal or other computer only when it meets the criteria outlined in this regulation.	N.J.A.C. § 13:35-6.5
New Mexico	Retention and preservation of such records in microfilm or other photographically reproduced form shall be deemed originals for the purposes of the rules of evidence promulgated by the supreme court of New Mexico.	N.M. Stat. Ann. § 14-6-2
New York	Medical records shall be legibly and accurately written, complete, properly filed, retained, and accessible in a manner that does not compromise the security and confidentiality of the records.	10 NYCRR § 405.10
North Carolina	The manager of medical records may authorize the microfilming of medical records. Microfilming may be done on or off the premises. If done off the premises, the facility shall take precautions to ensure the confidentiality and safekeeping of the records. The original of the microfilmed medical records shall not be destroyed until the manager of medical records has had an opportunity to review the processed film for content. Nothing in this subchapter shall be construed to prohibit the use of automation of medical records, provided that all of the regulatory provisions are met and the medical record is readily available for use in patient care.	10 N.C.A.C. 3H.2402

North Dakota	Records must be preserved in original or any other method of preservation, such as by microfilm.	N.D. Adm. Code 33-07-01.1-20
Oregon	Original medical records may be retained on paper, microfilm, electronic, or other media.	333-505-0050
Pennsylvania	Ambulatory surgery facilities (ASF): This section states that medical records may be microfilmed at any time including immediately after completion. Microfilming may be done on or off the premises. If done off the premises, the ASF shall take precautions to assure the confidentiality and safekeeping of the records. The original of the microfilmed medical records may not be destroyed until the medical records service has had an opportunity to review the processed film for content. Nothing in this subpart may be construed to prohibit the use of automation in the medical records service, if the provisions are met and the information is readily available for use in patient care. Innovations in medical record formats, compilation, and data retrieval are specifically encouraged.	28 Pa. Code § 563.8
Rhode Island	Storage mediums are not specifically addressed. However, it is stated that provisions shall be made for the safe storage of medical records. A mechanism shall be established to ensure confidentiality of all medical records, including computerized or electronic records. This section addresses electronic signatures and records and provisions that must be followed in transactions or communications with the state.	CHIR 14-090-007 R.I. Gen. Laws § 42-127-3
South Carolina	Facilities that microfilm records before the expiration of the retention period must film the entire record.	S.C. Code Regs. 61-13, 16, 17
South Dakota	Medical records must be preserved as original records, on microfilm, or in other readily retrievable form.	ARSD 44:04:09:09
Tennessee	Any hospital may transfer and record upon photographic film of convenient size, such as microfilm, photograph or photostat, or upon nonerasable optical and electronic imaging technology, for the preservation thereof as evidence.	Tenn. Code Ann. § 68-11-307
Utah	Medical records may be maintained by an electronic means if the records meet the standards and ethics of the profession and if they are maintained in accordance with division rules made in collaboration with the board.	§ 58-67-803
Virginia	Medical records may be stored by computerized or other electronic process or microfilm, or other photographic, mechanical, or chemical process; however, the stored record shall identify the location of any documents or information that could not be so technologically stored. If the technological storage process creates an unalterable record, the nursing facility, hospital, or other licensed healthcare provider shall not be required to maintain paper copies of medical records that have been stored by computerized or other electronic process, microfilm, or other photographic, mechanical or chemical process.	12 VAC 5-410-950

Washington	Health records may be recorded, copied, or reproduced by any photographic, photostatic, microfilm, microcard, miniature photographic, optical imaging, or other process which accurately reproduces or forms a durable medium.	Rev. Code Wash. (ARCW) § 5.46.010
West Virginia	The reproductions by photographic, photostatic, microphotographic or by similar miniature photographic process or nonerasable optical image disks shall be deemed to be an original record for all purposes, including introduction in evidence in all courts or administrative agencies.	West Virginia Code § 57-1-7a
Wyoming	Records of public hospitals shall be preserved, either in the original form or on microfilm.	WY Dept. of Health & Social Services Division of Health & Medical Services Chapter IV Section 7-b-3

Note

1. Health Care Financing Administration, Department of Health and Human Services. "Conditions of Participation for Hospitals." Code of Federal Regulations, 1998. 42 CFR, Chapter IV, Part 482.12.

References

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To view a posting of the HIPAA law, process, regulations, and comments go to <http://aspe.os.dhhs.gov/admsimp/>.

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